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ABSTRACT

A reading program's effectiveness can be assessed by investigating skills improvement together with attitude improvement. Frequently, teachers make questionable assumptions about student reading attitudes. To provide educators with a more accurate picture of students' expressed feelings, students' attitudes toward reading should be measured with formal assessment techniques. After reviewing the nature of reading attitudes, various attitude measurement techniques are described, such as Likert scales, the Guttman cumulation technique, the semantic differential, interviews, and observation rating scales. A source book of 14 reading attitude instruments is appended. (Author)

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MEASURING ATTITUDES TOWARD READING

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INTRODUCTION

Researchers wanting to investigate reading achievement measures or issues related to measuring reading ability should find no lack of information. If anything, they might be overwhelmed by the number of available measures and the sheer volume of information provided. Reading achievement measures have a long history, and vast sums of money have been invested in their development. A growing test industry fueled by public demands for accountability and the clamor to meet minimal competencies helps ensure that this trend will continue for the foreseeable future.

The same interest expressed in reading achievement assessment cannot be claimed for reading attitude measurement. Certainly, major test publishers have not played an instrumental role in publishing existing measures or in underwriting the costs for developing new instruments. While many reading textbooks claim that attitudes toward reading are important and play a vital role in learning to read, little in the way of a conceptual background is provided to the reader, and few suggestions are offered as to how attitudes toward reading can be assessed. Although several comprehensive reviews of the literature have been produced, no source is available that attempts to centralize existing measures. Individuals interested in examining available measures must wade through dissertations, microfiche cards, journal articles, and other sources of information in order to obtain a picture of the field. Consequently, the task of selecting the most promising scale or technique becomes rather difficult.

This source book attempts to address these shortcomings by exploring the issues related to reading attitude assessment and by providing a wide-ranging sample of existing measures together with their psychometric data (properties).

This work is divided into two parts. In the first part, the nature of attitudes in general and attitudes toward reading specifically are explored. Various approaches taken to measure reading attitudes are illustrated, and the rationale behind these approaches is explained. Finally, the criteria that should be considered in determining the merits of any particular measure are provided.

The second part of the work presents a representative sample of existing measures used to assess attitudes toward reading. Included with each instrument is information that potential users would feel relevant, such as name(s) of author(s), availability of instrument, psychometric characteristics, administration and scoring guidelines, norms, development, and further references.

It is the hope of this author that this source book will help achieve the following goals:

1. encourage individuals to make greater use of existing scales;
2. enable practitioners to compare existing measures to determine the most suitable assessment instrument(s);
3. stimulate more research in refining existing measures and developing newer and more sophisticated and comprehensive scales;
4. encourage researchers to seek a multi-indicator approach upon which to base inferences.

ATTITUDES TOWARD READING

The ultimate success of a reading program's effectiveness should be judged not solely on the basis of how well students learn to read but also in terms of whether they do in fact read. After all, what value is there in the ability to read if reading is seldom engaged in or if it is perceived as an unpleasant task?

While schools have begun to recognize the importance of developing in students positive attitudes toward reading, it is safe to say that basic skills instruction receives the greatest emphasis. Virtually all school systems measure student reading achievement, yet few have an adequate or realistic picture of pupil attitude toward reading. This unbalanced and somewhat narrow emphasis is unfortunate since, according to Alexander and Filler (1976), "there is little disagreement relative to the importance of positive attitudes in assuring maximal success with reading" (p. 1). Some investigators claim that attitudes toward reading are perhaps even more important than achievement scores. Fader (1968), in Hooked on Books, maintained that student attitudes must be improved before one may expect to see any lasting effects upon performance. Dechant (1970) stated that the attitude of a pupil is often at the root of his or her reading difficulty and that the solution to the problem of the reluctant reader begins with a change of attitude.

The Need to Measure Reading Attitudes

Several reasons can be advanced to justify the need for measuring attitudes toward reading. Specifically, if one accepts the premise that attitudes influence learning and that attitudes toward reading are

crucial in learning to read, then it is quite evident that educators should be aware of students' feelings as they relate to reading. Reading, after all, plays a central role in a student's school life, especially as the basis of learning most academic subjects. In recognizing its importance, Athey (1976) stated that "it seems logical to suppose that when a child finds reading a pleasurable experience, his positive attitude will rapidly become generalized to other school subjects" (p. 366).

Reading attitudes should be considered part of a total evaluation scheme and one important criterion of a program's success. Measuring a program's effectiveness based on ability scores alone is limited. A more balanced goal would be achieved by investigating skills improvement together with attitude improvement. As Rowell (1967) quite aptly stated, "If improvement in reading skills takes place without a concurrent improvement in attitude toward reading, the progress is only partial and at best, may be of short duration" (p. 3).

If we truly desire to promote positive reading attitudes or at least reduce negative attitudes (feelings), we must be aware of students' present attitudes. This becomes especially important as students move from grade to grade and approach graduation, after which time school can do very little to overcome negative attitudes. By having a clear picture of students' feelings about reading, we can begin to understand and investigate the various factors that may contribute to the development of these attitudes. Just as it would be useful to learn of those factors that promote negative attitudes toward reading, so would it be helpful to determine those experiences that foster positive feelings.

While most of the efforts to assess reading attitudes have been directed toward students, there is another population whose attitudes should be of concern to us. According to Khan and Weiss (1973), "It is clear that whatever may transpire in the school, the teacher has the most central role in the development of students' affective responses" (p. 786). Since teachers probably exert an influence on student reading attitude (McEachern 1980), it is equally important to determine teachers' feelings toward reading and examine the relationship between teacher and student attitude. Recently, researchers have realized that this is another significant aspect of the measurement picture and have developed scales to assess teacher attitudes toward various aspects of reading (Schofield and Start 1977; Vaughan 1977).

Students' attitudes toward reading should be measured by means of formal assessment to provide educators with a more accurate picture of students' expressed feelings. Several investigators have found that teachers make questionable assumptions about student reading attitudes partly because they rely on common sense notions rather than on actual measurement data.

Ransbury (1973) noted that teachers associated student reading attitude with intelligence or ability. A student who completed a reading assignment in an efficient and correct manner was considered to enjoy reading. Yet, as Ransbury reported, children associated other behaviors such as ownership of books or the desire to read as indicative of reading attitude. Mikulecky (1978) found that teachers were not able to accurately predict student reading attitudes and that their predictions correlated more with English grades than with a reading attitude measure.

These studies suggest that if teachers rely solely on ability measures to predict student attitude while excluding information provided by reading attitude measures, they may not gain an accurate picture and consequently may plan ineffective or inappropriate teaching strategies. Roettger (1980) recently noted there are groups of students who do not conform to expected patterns in that some who score quite high on a reading achievement test express negative attitudes toward reading while others, despite low achievement scores, have favorable attitudes.

Khan and Weiss (1973) summarized this issue by stating, "If desirable affective goals are to be realized as a result of the educational process, relevant formal learning situations have to be developed and the effects of such learning experiences will have to be systematically appraised" (p. 760).

A Neglected Area of Measurement

Considering the above factors, why then have attitudes in general and reading attitudes in particular received less attention than they properly deserve? Why aren't more systematic efforts made to assess school-related attitudes? One reason may be that some parents and educators view attitudes as private in nature and consequently not part of the school's domain. The notion of measuring attitudes and attaching a grade to such an assessment runs counter to their beliefs.

Others may in principle agree with the importance of developing and assessing school-related attitudes, but given the constraints of time and money, these individuals elect to support "more pressing" cognitive goals (concerns). According to Khan and Weiss (1973), it is also possible

that some educators simply assume that students will develop appropriate affective behaviors as a result of cognitive learning and that no special attention need be paid to attitude development.

Perhaps the most important reason for the neglect of attitude development and assessment lies in the fact that there are relatively few recognized attitude instruments, particularly in the area of reading, which are readily available. In part this is due to the difficulty of defining attitudes and measuring them. It is this last factor that will be explored in the next section.

THE NATURE OF ATTITUDES

It is quite common to read newspaper accounts or view television news reports dealing with the attitudes of a certain group of individuals toward an emotionally charged issue. While the term attitude is widely used in everyday speech, it appears that speakers and writers attach their own meanings to this term. We might expect more clarity in the field of social science, particularly in the area of social psychology, but such is not the case. Although the concept of attitude is frequently cited, there are multiple and often confusing definitions of the term. In 1968 Scott, after reviewing various definitions attached to the term attitude, concluded that "it is unreasonable to expect a single, final definition of 'attitude' to emerge within the foreseeable future" (p. 205).

In a more recent review of the field, Green (1977)stated: "No single definition can be found that will satisfy all those who study the topic. This fact is largely a consequence of the broadness of the concept, which permits various definitions reflecting the theoretical point of view of the individual student of attitudes" (p. 111).

This does not mean that there are no common features among the various definitions of attitude and that no meaningful discussion can follow. As we shall see, there are several shared points of view regarding the nature of attitudes. Perhaps it would be best to first look at two ways in which attitudes can be conceptualized.

Operational Definition

At one level we speak of an operational definition of attitudes. Simply stated, the concept of attitude is based upon an operation or set

of operations which usually involves designing, administering, and scoring some type of assessment scale. According to the operational definition, a person's attitude is "the response by which he indicated where he assigns the object along a dimension of variability" (McGuire 1967, p. 149).

To be sure, operational definitions are important for understanding the nature of attitudes, but they must be viewed together with a conceptual definition of the term. Unfortunately, too many investigators rely exclusively on operational meanings and attitude to mean the score that individual "X" receives on scale "Y." We suffer because we do not know what conceptual framework of attitude was utilized by the author in the development of the measuring device. Without this information, it becomes difficult to understand the rationale for a particular given operation.

Conceptual Definition

Although there are various divergent viewpoints associated with the conceptual definition of attitude, some common characteristics emerge which can serve to unify the discussion.

1. An attitude is a mental construct. It is impossible to "see" or "touch" an attitude for it exists within the individual and must be inferred from verbal or motor behavior. As a construct, attitudes are part of an abstract system used by social scientists to explain various postulated attributes of individuals. In a sense, a construct is our invention which is used to give meaning to various relationships associated with our observations of human nature. Other examples of constructs are intelligence and anxiety. (Green 1977; Henerson, Morris, and Fitz-Gibbon 1978)

2. Attitudes are learned. There is a general consensus that we are not born with positive or negative attitudes but rather

that they develop and are learned through experience. Once they are internalized, they become reasonably enduring. (Lemon 1973; Shaw and Wright 1967)

3. Attitudes center on a focal object. The focal object most often will deal with some aspect of an individual's environment and can include an idea, a symbol, a phrase, or anything that might evoke different feelings among individuals. (Shaw and Wright 1967; Eagly and Himmelfarb 1978)

4. Attitudes predispose individuals to respond toward some object. Attitudes represent a tendency to act positively or negatively toward the object or the symbolic representation of the object in question. (Summers 1970)

5. Attitudes are evaluative in nature. They are seen as feelings toward some object, and these feelings can take on a positive, neutral, or negative tone. It is this last aspect which has received the greatest stress in the literature. (Summers 1970; Lemon 1973; Severy 1974)

Other Properties

Scott (1968) also provides a useful framework by which to examine attitudes. He indicates that there are a number of properties associated with attitudes which can be conceptualized and measured in varying degrees. He cites the following eleven properties but indicates that there are probably more.

1. Direction: the position along the attitude continuum ranging from positive feelings at one extreme to negative feelings at the other.

2. Magnitude: the degree to which the attitude is favorable or unfavorable.

3. Intensity: the degree of "strength of feeling" or commitment with which an individual maintains a particular attitude position.

4. Ambivalence: the extent to which an individual maintains both positive and negative feelings toward the attitude object.

5. Salience: the importance or prominence of the attitude to an individual.

6. Affective Salience: the degree to which the evaluative or feeling component of an attitude exerts a greater influence over an individual's views than does the cognitive or conative component.

7. Cognitive complexity: the number or "richness" of ideas an individual has about the attitude object.

8. Overtness: the extent to which an attitude will be expressed in action tendencies on the part of an individual.

9. Embeddedness: the degree to which an attitude is associated with or related to other concepts.

10. Flexibility: the extent to which an attitude can be modified.

11. Consciousness: the degree to which an individual is aware of a given attitude.

According to Scott, most of these properties have not been scaled, nor have they been operationalized adequately in attitude literature. By far the greatest attention in attitude assessment has been focused on measuring the direction and magnitude properties.

Components of Attitude

Some theorists have proposed that attitudes consist of three components: cognitive, affective, and behavioral (Summers 1970; Lemon 1973; McGuire 1969). The cognitive component refers to the knowledge, beliefs, information, and perceptions held by an individual about the attitude. The affective component concerns the individual's evaluation of the attitude object. The evaluation usually involves emotional feelings and can be expressed as a liking or disliking. The behavioral or conative component refers to the individual's action tendency toward the attitudinal object. This component concerns itself with the individual's predisposition to respond, to seek out, and to approach the attitude object.

Among attitude theorists, there is no unanimity regarding the value of conceptualizing attitudes in terms of three components. Proponents maintain that the component theory presents a truer picture about the nature and structure of attitudes. They feel that attitudes should be viewed in terms of the interrelations between thoughts, feelings, and actions. Opponents of this approach claim that it is often difficult to distinguish between the components and that, from an operational point of view, it is difficult for one score to represent the three components. Others maintain that attitudes are nothing more than positive or negative evaluations, and they dismiss the notion of a component theory.

To recapitulate, two positions have been outlined that reflect two popular approaches to conceptualizing attitudes. Himmelfarb and Eagly (1974), after reviewing research on the nature and structure of attitude, stated:

> Clearly, many conceptions of attitude rest on the idea that attitudes involve evaluative responses or an affective component. This evaluative definition and definition in terms of the three components of attitudes are the two traditions of conceptual definitions that remain strongest today. Many of the instruments designed to measure attitudes rely on one or both of these conceptual approaches to infer the existence and change of attitudes. (P. 26)

Before concluding this general discussion concerning the nature of attitudes, it might be useful to consider the following definition found in The Dictionary of Behavioral Science as one that incorporates many salient characteristics of attitude:

> A learned predisposition to react consistently in a given manner (either positively or negatively) to certain persons, objects or concepts. Attitudes have cognitive, affective and behavioral components. (Wolman 1973, p. 34)

THE NATURE OF READING ATTITUDES

Theoretical Problems

We should not be surprised to learn that the same issues that relate to attitudes and attidude measurements in general have been raised about the area of reading. After surveying the field, Redelheim (1975) concluded that "a unified approach to the study of student attitude toward reading (defined as broadly as possible) is lacking. Many gaps exist. It appears that the development of the theoretical framework for an attitude measurement has been haphazard at best" (p. 10). Mikulecky (1976) expressed a similar point of view. He noted that most attitude measuring devices "seem to be designed without reference to an existing knowledge of the process by which individuals develop attitudes. In addition, most reading researchers have failed to present theoretical models or frameworks for the instrument they develop. The lack of such models and theoretical frameworks makes interpretation of an instrument's score both vague and subjective" (pp. 6-7).

Reading Attitudes--A Broad Concept

Defining and measuring an abstract and broad construct as "attitude toward reading" is no simple matter. Because of the lack of an acceptable definition of reading attitude, investigators have approached the problem of assessment from various perspectives. In order to cite some of the variables associated with the construct and to illustrate the complexities of measuring such a vague and multifaceted concept, consider the following questions.

How would you define a person's attitude toward reading? Ransbury (1973) found that teachers, students, and parents differed in their

responses when asked to describe the behavior of individuals that could be considered indicative of reading attitude. Do you view the affective component of attitudes, the feelings associated with reading, as the primary contributor to the attitude construct, or do you believe that values, beliefs, and behavioral tendencies of individuals must also be considered? Are there several dimensions reflected in the construct "attitude toward reading"? For example, when you think of reading, are you referring to a school activity or a leisure activity or both? If you consider books to be part of reading, do you mean textbooks, comic books, or paperbacks? Do you include owning books, receiving books as presents, and browsing in the library as part of the total picture?

Assuming that you can satisfactorily answer these questions, the problem of developing and selecting a measuring technique must be examined. Do you consider verbally expressed opinions about reading to be indicative of real attitudes? Can a more accurate picture be obtained through the use of observational techniques, or might a projective measure better reveal underlying attitudes? Do you feel that the intent of the measuring instrument should be made obvious to subjects? Should subjects be presented with several alternatives from which to choose, or should a forced-choice technique be used? Do you feel that youngsters' attitude toward reading can be measured in the same way as adolescents' attitudes can or must special procedures be followed?

It should be obvious that there are no simple answers to these questions. Because individuals differ with respect to their views of reading attitudes and the nature of their measurement and because particular

assessment situations call for specific techniques, various approaches have been taken to measure attitudes toward reading. Irrespective of these differences, it is important that in our assessment efforts we demonstrate a clear understanding of what we are measuring and why we are measuring it (Summers 1976; Reed 1978).

THE MEASUREMENT OF READING ATTITUDES

Before beginning the discussion of how researchers have attempted to measure attitudes in general and attitudes toward reading in particular, it may be helpful to review some previously discussed points. First, it should be recalled that because attitudes cannot be seen, their existence and strength must be inferred from behavior. Second, as Scott (1968) stated, most attitude assessment techniques have focused on measuring direction (positive-negative) and magnitude (extent of feeling) properties.

The most popular methods used to measure attitudes toward reading have followed traditional attitude assessment approaches and may be classified under three broad headings: self-reports, observations, and projective techniques. Each approach has something to offer and makes different assumptions about the way attitudes can be measured.

Self-report Measures

As the name implies, self-report measures allow subjects to respond orally or in writing to a series of statements, opinions, questions, concepts, or ideas prepared by the researcher which are related to the attitudinal object. Self-report measures represent the most direct approach for assessing attitudes and enjoy the widest popularity among attitude measurement techniques (Summers 1970; Edwards and Porter 1972; Henerson, Morris, and Fitz-Gibbon 1978). Users of this procedure assume that subjects are cognizant of their own feelings and are able and willing to express them candidly. While various means have been devised to collect self-report specimens of behavior, the use of attitude scales is the most prevalent.

Attitude Scales

Isaac (1971) defines a scale as a "measuring device allowing the assignment of symbols or numbers to individuals, or their behaviors, by rule. Such an assignment indicates the individual's possession of a corresponding amount of whatever the scale is claimed to measure" (p. 100). With respect to attitude measurement, a scale usually consists of a series of items--mostly in the form of statements or questions--to which an individual responds. According to Shaw and Wright (1967), "...the typical attitude scale measures the acceptance of evaluative statements about the attitude object. The attitude toward the object is inferred from the statements endorsed by the subjects, based upon the consensual evaluation of the nature of the characteristics attributed to the object by the acceptance of these statements. Such scales measure only the positivity-negativity of the affective reaction" (p. 14).

While there are several popular attitude scaling techniques, each employing a different approach by which to determine the magnitude or quantity of an attitude object, there are some basic assumptions shared by these methods. In the first place, according to Zimbardo, Ebbesen, and Maslach (1977), "it is assumed that subjective attitudes can be measured by a quantitative technique, so that each person's opinion can be represented by some numerical score. Secondly, all of these methods assume that a particular test item has the same meaning for all respondents, and thus a given response will be scored identically for everyone making it" (p. 214).

The popularity of attitude scales may be explained by their quantifying and measuring qualities. They allow researchers to measure the degree to

which different individuals possess the characteristics under study. Moreover, attitude scaling techniques provide for objective measurement instruments that can be administered to large groups in a relatively limited amount of time and scored quite easily, especially with the aid of various computer packages.

The following paragraphs will describe the most popular attitude scales, show how items are developed and scored, and provide examples that demonstrate how these scales can be applied to measure reading attitudes.

Thurstone's Method of Equal-Appearing Intervals. The goal of this procedure is to construct a scale with equal-appearing intervals whose items cover an attitude continuum ranging from positive to neutral to negative. The investigator collects a large number of statements regarding the attitude under investigation. Students, teachers, and parents may be used to generate attitudinal statements, or the investigator can create statements that are based upon the opinions expressed in the professional literature. The original pool of items, usually numbering about 100, must reflect the total spectrum of attitude from highly favorable through neutral to highly unfavorable. All of these attitudinal statements are presented to thirty or more judges who are instructed to sort the statements into eleven piles lettered A to K, which are to be considered equal intervals along the evaluative dimension. The most positive statements are placed in pile A, neutral statements in pile F, and the most negative items in K. All other statements are placed in one of the remaining piles depending on the degree of favorability or

unfavorability. It should be noted that the judges are asked merely to classify the statements and not to express their own attitudes toward each statement. Each judge works independently and sorts all the statements into one of the eleven categories. The scale value for each statement is based on the median or mean position assigned by the judges. Ambiguous items, ones that reflect a substantial amount of disagreement among judges' ratings, are eliminated.

In its final form, the scale is composed of approximately twenty to thirty items that cover the entire range of the attitude continuum. Subjects are presented with the attitude statements, arranged in random order without the scale values, and are told to select only those items with which they agree. A subject's score is arrived at by computing the average scale value of those items selected or by taking the middle score.

For example, assume that the following sample reading attitude statements were scaled according to Thurstone's criteria and then presented to an individual for endorsement:

Statement	Scale value
1. Reading is an enjoyable way to learn.	3.4
2. Reading is a complete waste of time.	9.6
3. I am rarely in the mood to read.	6.2
4. The more I read, the more I enjoy it.	2.1
5. I wish I didn't have to read so much.	8.6
6. I have no particular love or hate for reading.	5.3
7. Occasionally I enjoy reading.	4.2

8. Reading is the worst part of my day. 10.1

9. I wish I could read all day long. 1.4

A subject who agrees with statements 1, 4, and 9 would obtain an attitude score of 2.3 based on the average score of the selected items. Such an attitude on a continuum of 1 to 11, with 1 considered the positive side, would be construed as quite positive.

Thus, according to this scaling method, individuals' responses to previously scaled items place them along the attitude continuum. Theoretically speaking, respondents should agree with only a few items on the continuum which reflect their attitude and will disagree with items lying on either side of the scale from these.

Thurstone-type scales have not been used widely in reading attitude research, probably because other types of scales have been found to be equally reliable and easier to develop. The procedure of using judges to classify statements can be cumbersome, and the possibility exists that the judges' attitudes affect their classification of items. Still, the use of judges has its merits. Borgatta (1979), in discussing the positive aspects of Thurstone scaling, stated "...the emphasis of building a broad array of statements that are theoretically related to the content suggests the importance of exploring competing theories, and alternate definitions and uses of concepts, and not proceeding in a naive operationalist manner to simply state: I am going to measure concept X this way. This emphasis on search of theory and research in the building of scales, and of involving expert and judgmental screening of items, persists in more sophisticated concerns of building measures, although interest in the

Thurstone scaling procedures as such have receded" [sic] (p. 386). For further references, see: Edwards (1957); Oppenheim (1966); Fishbein and Ajzen (1975); and Borgatta (1979).

The Likert Scale. The Likert, or summated rating, scale is one of the most popular approaches used to assess attitudes toward given objects. Essentially, respondents are asked to express the degree of their agreement or disagreement with attitude statements. This approach differs from the Thurstone method which requires subjects to accept certain given scaled statements without indicating the extent of their agreement with the statements. In the Likert approach, the responses rather than the items are scaled.

Attitudinal statements are produced essentially in the same way as they are in the Thurstone method. The researcher may rely upon the opinions of experts in the field or may wish to have students or teachers generate appropriate items. In any case, a number of positive and negative statements related to the attitudinal object, in this case reading, are gathered. The statements are presented to a group of respondents who are asked to indicate the extent of their agreement or disagreement with each item. This is accomplished providing a response format in the form of a rating scale usually containing five choices: Strongly agree, agree, undecided, disagree, and strongly disagree. Each of these choices is assigned a value of 1, 2, 3, 4, or 5, and subjects' scores are determined by summing their responses to all the items, hence the term summated rating scale.

Although most Likert scales follow the pattern devised by Likert (1932) and make use of five categories of agreement-disagreement, investigators have employed other response options which provide between three and seven choices. Those investigators who make use of a response continuum that contains an odd number of choices do so in order to provide respondents with a middle option of undecided or neither agree or disagree. Other investigators favor using an even number of response categories in order to eliminate the midpoint response and force subjects to the positive or negative side. The selection of a particular response format depends in part on the nature and number of items selected for inclusion and on the ability of the population to make fine discriminations among the various response options.

By way of illustrating a Likert scale to measure attitudes toward reading, consider the following items which provide five response categories.

	Strongly Agree	Agree	Undecided	Dis-agree	Strongly Disagree
1. I enjoy reading in my spare time.	_____	_____	_____	_____	_____
2. I read only when I am forced to do it.	_____	_____	_____	_____	_____
3. Reading is very exciting.	_____	_____	_____	_____	_____
4. I like to receive books as presents.	_____	_____	_____	_____	_____
5. Reading is quite boring.	_____	_____	_____	_____	_____

Investigators wishing the most positive attitude position to receive the greatest weight assign a score of 5 to the strongly agree —

category of positive items. Thus, people with the highest score would be considered to have the most favorable attitude. In order to maintain the same scoring pattern, investigators score unfavorable items in the reverse, with the strongly disagree choice receiving a value of 5. By disagreeing strongly with a statement expressing a negative attitude toward reading, a subject would in effect be indicating a positive attitude. The following example of a positive and negative item taken from the above sample can help illustrate this point. The assigned weights are indicated below next to each response category.

	Strongly Agree	Agree	Undecided	Dis-agree	Strongly Disagree
Reading is very exciting.	5	4	3	2	1
Reading is quite boring.	1	2	3	4	5

If a Likert scale designed to measure reading attitudes consisted of twenty items with five response categories, a subject's summated score could range from a high of 100 (20 items x 5; strongly agreeing with positive items and strongly disagreeing with negative items) to a low of twenty (20 items x 1; strongly disagreeing with all positive items and strongly agreeing with all negative items).

In order to determine which items discriminate best, a statistical procedure known as item analysis is conducted. The score of each item is correlated with the total scale, and those items with the highest correlation are retained for the final version of the scale. In a sense

the investigator is looking for those items that appear to measure what the total score is measuring. It should be noted that in the Likert scale a score has meaning only in its relation to the scores earned by others in the given population sample.

The Likert scale has enjoyed a great deal of popularity because it correlates highly with Thurstone's method and requires less time to construct. It is also possible to adapt the response format of the Likert scale to the needs of youngsters. Rather than make use of the five-point scale ranging from strongly agree to strongly disagree, several researchers have presented youngsters with three simple facial expressions ranging from a smile to a neutral expression to a frown. Students are instructed to circle the face that shows how they feel about a particular reading situation.

It should be noted that while subjects can express their degree of agreement or disagreement with an item, there is a tendency for some respondents to choose certain fixed categories of responses commonly known as response set. "Certain individuals, when in doubt," according to Payne (1974), "tend to choose the agree category irrespective of the content of the items. This phenomenon obviously distorts the meaning of the scores" (p. 160).

For further references regarding the Likert scale, see: Edwards (1957); Oppenheim (1966); and Lemon (1973).

Guttman Cumulative Technique. Some investigators have raised questions about the interpretation of Thurstone and Likert scale scores because for each scale, various response patterns can produce the same

score. Critics have suggested that both the Thurstone and Likert scales might include several dimensions of the attitude under investigation, and this, too, makes it difficult to analyze and interpret the significance of a single score, expressed by a single number. Guttman's cumulative technique sought to produce an attitude scale in which the set of attitudinal statements is considered unidimensional, that is, measuring only a single attitude dimension.

Ary, Jacobs, and Razavieh (1972) have explained this concept in the following way:

> An attitude is considered unidimensional only if it yields a cumulative scale--one in which the items are related to one another in such a way that a subject who agrees to item 2 also agrees to item 1; one who agrees with item 3 also agrees with items 1 and 2, and so on. Thus, individuals who approve of a particular item in this type of scale will have a higher score on the total scale than those who disapprove of that item (P. 182).

The following items can serve to illustrate the operation of cumulative scaling. Each respondent is asked to check either yes or no for each statement.

	Yes	No
1. I am willing to spend some free time reading.	___	___
2. I really enjoy reading.	___	___
3. I would rather read than do anything else.	___	___

All those respondents who check the yes column for item 3 are most likely to answer yes for items 2 and 1. Those subjects who respond no to item 3 but yes to item 2 will tend to say yes to 1. Other subjects who agree with the first item are likely to disagree with items 2 and 3,

while still other respondents might check the no column for all three items. The responses from the preceding example could be visualized in the following table adapted from Ary, Jacobs, and Razavieh (1972), p. 183.

	Agree with item			Disagree with item		
Score	3	2	1	3	2	1
3	X	X	X	0	0	0
2	0	X	X	X	0	0
1	0	0	X	X	X	0
0	0	0	0	X	X	X

If the scale is truly cumulative, then each score obtained should be associated with only one pattern of response to the scale items. Using the above three-item example, if we know that a subject's score is 2, then we can tell that items 1 and 2 received a yes response, while item 3 was given a no response. Similarly, knowing that a subject has a score of 3 should allow us to "reproduce" or determine that a response of yes was given for items 1, 2, and 3. Not all responses fit the above pattern, and it is necessary to determine the extent to which given responses are reproducible (known as a coefficient of reproducibility) from the total score. For a scale to be considered unidimensional or cumulative, Guttman suggests that the coefficient of reproducibility, how well the total score reveals the subject's answer to each item, should be a least .90.

Borgatta (1979), after reviewing Guttman-type scaling, stated that except in certain specific situations, it is not a useful procedure for attitude measurement. Most cumulative scales, according to Lemon (1973),

are limited to only a few items, require respondents to restrict their choices to yes or no, and in general are able to sample only a narrow portion of a generalized attitude domain such as "attitude toward reading." Because of these and other drawbacks, Guttman-type scaling has rarely been used in measuring reading attitudes.

For further references, see: Edwards (1957); Lemon (1973); and Borgatta (1979).

The Semantic Differential. The semantic differential, developed by Osgood, Suci, and Tannenbaum (1957) as a method of measuring the connotative meaning of concepts, has been extended to measure attitudes toward objects, subjects, and events. In the Likert, Thurstone, and Guttman scales, individuals express their agreement with a series of opinion statements. The semantic differential does not make use of statements of opinion but rather presents subjects with a concept that is rated on a seven-point scale with bipolar adjectives at each end. An example of an adjectival scale as applied to the concept of "reading" follows:

READING

nice ___: ___: ___: ___: ___: ___: ___: awful

Factor analytic studies of meaning conducted by Osgood, Suci, and Tannenbaum (1957) identify three factors or dimensions that people use in judging concepts. The three dimensions are referred to as the evaluative factor (e.g., nice-awful), the potency factor (e.g., strong-weak), and the activity factor (e.g., fast-slow).

The evaluative factor of the semantic differential has been used as a general measure of attitude. Osgood, Suci, and Tannenbaum have pointed out that attitude can be identified with the evaluative dimension of the total semantic space. Nunnally (1967) has stated that scales on the evaluative factor should serve well as measures of verbalized attitudes. When the semantic differential technique is used, a person's attitude toward an object is considered equivalent to the object's evaluative meaning for that individual. With respect to the validity and reliability of this technique, Lemon (1973) has stated, "...studies of the reliability and validity of the semantic differential give an overall favourable impression of its performance in attitude measurement..." (p. 109).

When the semantic differential is administered as a measure of attitude, a subject is asked to rate the attitude object on a set of bipolar adjective scales having high evaluative factor loadings. Apart from the above example of nice-awful, other bipolar adjective scales with high evaluative loadings are pleasant-unpleasant, valuable-worthless, and good-bad. The seven positions on each of the bipolar adjective scales are assigned values usually ranging from 1 to 7. Weighting of responses requires identifying those adjective pairs in which one of the adjectives is clearly preferred over the other. A value of 7 is then assigned to that side of the scale.

The remaining spaces on the continuum are assigned values ranging from 6 to 1 with negative responses receiving a value of 1 and neutral responses receiving a value of 4. The direction of attitude is indicated by the subject's selection of the space that is in either the positive or negative direction. Intensity of attitude is represented by how far

from the neutral point the subject's check mark is recorded. A subject's score for a particular attitude object is computed on the basis of the average responses to the bipolar adjective scales.

An example of a semantic differential scale comprised of adjective pairs with high evaluative loadings follows. The concept to be rated is "reading."

READING IS

nice	____:	____:	____:	____:	____:	____:	___:	awful
unpleasant	____:	____:	____:	____:	____:	____:	___:	pleasant
valuable	____:	____:	____:	____:	____:	____:	___:	worthless
dull	____:	____:	____:	____:	____:	____:	___:	exciting
useful	____:	____:	____:	____:	____:	____:	___:	useless
bad	____:	____:	____:	____:	____:	____:	___:	good

In discussing this measurement technique, Isaac (1971) states: "The semantic differential yields a large amount of data with a minimum of effort..." (p. 103). He goes on to say that the scores derived from this instrument "can be analyzed for differences between concepts, between scales, between subjects or any combination thereof" (p. 103). While the above example listed "reading" as the object to be rated, it is possible to consider other appropriate concepts such as "paperback books," "free reading," "reading textbooks," and "going to the library" as part of the attitude universe.

Several points should be kept in mind when using the semantic differential. Lemon (1973) has suggested that researchers examine the adjective pairs for a particular scale since they may take on different

meaning when applied to different concepts. If this measurement technique is to be used with youngsters, it is important to determine if they understand the adjective pairs selected and if they are able to rate the concept without too much confusion. In addition, it has been noted by Henerson, Morris, and Fitz-Gibbon (1978) that "...the semantic differential yields only general impressions without information about their source...." Thus, if differences are found between groups with respect to their rating of a particular concept on a set of scales, it may be difficult to determine the reason behind the differential rating.

For more information, see: Nunnally (1967); Heise (1970); Lemon (1973); and Kerlinger (1973).

Paired Comparison. Good (1973) has presented a clear definition of the paired comparison scale. He defines this as:

> ...a scale constructed by presenting all possible pairs of a set of statements to subjects and having them judge the relative degree of favorability of each statement; in this way all the statements can be arranged along a continuum from favorable to unfavorable (P. 509).

In using this scaling method for attitude assessment purposes, a researcher often begins by interviewing subjects to determine their favorite or preferred activities. The most frequently named activities are then presented together or paired with the attitudinal object under consideration. The means of presentation can include verbal statements as well as pictorial representation of the activity. In applying the paired comparison technique to measure attitude toward reading, an investigator would first have to decide which aspects of reading attitude should be covered in the scale. For example, reading as a school activity could be paired with other school subjects such as arithmetic, spelling,

or music. Alternatively, reading as an outside recreational activity could be paired with other recreational activities such as watching television or riding a bicycle. Whatever items are selected, a subject is asked to choose between reading and some other socially desirable activity.

To illustrate how the paired comparison technique works, consider the following six school activities: reading, math, music, science, history, and art. If we label these activities A, B, C, D, E, F and pair each activity with every other one, a total of fifteen pairs is generated.

AB	BC	CD	DE	EF
AC	BD	CE	DF	
AD	BE	CF		
AE	BF			
AF				

The paired items are then presented in a random sequence to a subject who is asked to choose which of each pair of activities, pictures, or statements is most preferred. In its printed form, the scale, in part, might look like this:

Check the one activity in each pair that you like the most:

1. ☐ reading

   ☐ math

2. ☐ history

   ☐ music

3. ☐ reading

☐ art

etc....

In most cases, a score is determined by counting the number of times reading is selected over the other possible alternatives. The responses can be examined to ascertain the consistency of a subject's response, i.e., does the individual select the same concept each time it is presented? Additionally, the items can be ordered according to the subject's first choice, second choice, and so on, and a rank order summary of a subject's preferences can be prepared.

The paired comparison technique is essentially a forced-choice method. Because the choices are restricted, proponents of this method have argued that this technique helps control response set and minimizes socially desirable answers. Anastasi (1976), after reviewing the situation, stated that while response set may be somewhat controlled, the forced-choice technique is not as effective in dealing with this phenomenon as had originally been hoped. In order for response set to be dealt with more effectively, a pair should appear twice, with the order of the item reversed the second time. This procedure can be followed with a limited number of pairs, but if the number of pairs becomes too large, the process becomes too time-consuming, laborious, and unmanageable.

Some investigators prefer the paired comparison technique because it can be applied to many stimuli such as words or pictures, and a great

deal of information can be gathered with a limited amount of material. In addition, the technique can be used effectively with youngsters who may have difficulty with other measurement scales. On the other hand, some investigators note that the forced-choice format is somewhat artificial. What happens to the individual who doesn't like either of the pairs offered and yet must choose one or the other? The possibility always exists that the respondent will begin to mark items randomly. In addition, the paired comparison approach doesn't provide an index of the relative strength of a choice.

For further references, see: Fox (1969) and Kerlinger (1973).

Questionnaires

Questionnaires have been used to assess reading attitudes. The questions are structured to tap various dimensions of reading attitude, and the subject is asked to respond, usually in the affirmative or negative. Examples of items found in reading attitude questionnaires are:

1. Do you read the newspaper? Yes No
2. Do you read in your spare time? Yes No
3. Do you like to read in school? Yes No

The two-option answer forces the respondent to take a position at one end of the spectrum. While this might prove to have some value, it should be noted that this response format restricts subjects who might hold differing positions along the attitude continuum. For example, someone may like to read in school but only a little. Another person might read voraciously in his or her spare time. It should also be noted

that the format of the forced-choice questionnaire makes it easy for subjects to fake their responses and provide answers that please their teachers.

A score on this type of instrument is determined by adding the number of yes responses, assuming that these are answers that reflect positive attitudes. A high score would indicate favorable attitudes.

Some questionnaires, like the San Diego County Inventory of Reading Attitude, present a norm table that permits raw scores to be expressed in terms of stanines.

For more information, see: Selltiz et al. (1959) and Henerson, Morris, and Fitz-Gibbon (1978).

The self-report measures discussed thus far--attitude scales and questionnaires--have certain features that contribute to their popularity in attitude assessment situations.

1. They allow subjects to respond anonymously, thereby increasing chances of receiving open and honest responses.
2. They give subjects time to formulate responses.
3. They are adaptable to large-scale assessment in that many people can be tested at one time.
4. They can be standardized so as to provide greater uniformity from one measurement to another.
5. They can provide data that can be quantified and subsequently analyzed by computer.

As with any assessment approach, there are disadvantages to these types of self-report measures.

1. The readability of items--the wording and complexity of statements--may confuse respondents and affect their responses.

2. Even when anonymity is provided for, the possibility exists for response set, which may be expressed in terms of faking answers, giving socially acceptable responses, or choosing a particular response pattern without really attending to the items.

3. The answers given are limited to the specific questions asked, the response mode provided for, and respondents' awareness of and ability to indicate their attitudes.

Interviews

In order to avoid some of these shortcomings, researchers have made use of interviews because they have certain advantages over other self-report measures. Since many interviews adopt a flexible format, a researcher can probe, clarify points, and detect misunderstood items. Because of the oral style of response, readability factors are controlled for the respondent. In addition, the investigator can record a subject's response and determine in part the intensity of feeling expressed based on the tone and emotion of the response. Since the interviewer controls the questioning pattern, the respondent cannot look ahead and prepare set answers to the items.

One of the most productive uses of interviews in reading attitude research has been to provide information that was subsequently used in generating items for attitude scales. For example, many researchers have conducted interviews with representative samples of target populations, i.e., students or teachers, in order to determine characteristics of individuals who can be considered to have favorable or unfavorable attitudes toward reading.

Apart from its use in helping researchers generate items for attitude scales, the information gained from interviews has been used by

researchers to refine and improve existing measures and to probe and try to understand the reasons behind unexpected results (e.g., poor readers with positive reading attitudes or competent readers with negative attitudes).

Interviews, however, have shortcomings. Because they don't provide for anonymity, there is a chance that a respondent will feel threatened by the evaluative nature of an interview. Interviews can be costly and time-consuming, and they are not suitable for large-scale assessment. The question of objectivity also arises both in terms of how the interviewer views and interprets the respondent's statements and vice versa. Although interviews can provide a substantial amount of data, the question remains how this information can be coded and interpreted objectively. Finally, in most interviews, especially those requiring probing and follow-up questions, there is a need for trained interviewers.

For more information regarding the use of interviews, see: Selltiz et al. (1959); Kerlinger (1973); and Henerson, Morris, and Fitz-Gibbon (1978).

Observation Rating Scales

While self-report measures tend to dominate the attitude assessment field, they are not without their limitations. Since the subject is providing the responses, it is quite possible for an individual to give answers that are socially acceptable, that present an "ideal image," or that might tend to impress the investigator. Additionally, there is some question as to the ability of poor readers to understand and respond to statements contained in self-report instruments.

To overcome these difficulties, investigators have made use of rating scales that are based upon observation of student behavior. The rationale behind this approach is that students more accurately indicate their feelings toward the object in question through behavior than through after-the-fact self-report measures.

A series of statements descriptive of the attitude under investigation are written. Much of this work is identical to the preparation of items in the self-report measures. It is important that items be clearly stated and that any ambiguities in interpretation be clarified. Likewise, it is helpful if the observers are given specific criteria by which to rate students. Since one would want to ensure an objective and unbiased observation, it is recommended that more than one observer be present so that the same behavior can be noted and rated by two individuals who are instructed to work independently of each other. The observations should be made over a period of time to ensure that students have ample opportunity to express their typical behavior. After observers complete their ratings on a particular subject, their scores are compared and a measure of inter-rater reliability is computed. To the extent that both observers' judgments agree, a high degree of interjudge reliability is achieved. An example of a rating scale used by observers to rate reading-related behavior follows:

	Never	Rarely	Occasionally	Frequently	Always
1. During the free period, the student chooses to read.	____	____	____	____	____

	Never	Rarely	Occasionally	Frequently	Always
2. When presented with the opportunity, the student browses through the class library.	____	____	____	____	____
3. The student eagerly volunteers to discuss his/her reading with the class teacher.	____	____	____	____	____

Essentially, this type of scale is similar in construction to the Likert scale, but here it is the observer who notes the frequency of each behavior's occurrence. Values for each item are summed in order to compute a total score. In the above scale, a high score would be indicative of a positive attitude. The same items could be presented with a slight modification so that each statement could be scored dichotomously. Such a scale might look like this:

	Yes	No
1. During a free period, the student chooses to read.	____	____
2. When presented with the opportunity, the student browses through the class library.	____	____

While observation presents an added dimension to attitude assessment methodology, it, too, has its shortcomings. Observation calls for objective and unbiased reporting, and there is some indication that observers can be influenced by several factors which, in turn, affect their objective ratings. If classroom teachers act as observers of their own classes, it is possible that their overall impressions of particular students will influence their ratings. For example, a teacher who likes a student or knows a certain student is a high achiever might rate that student favorably on all items of a scale. In addition, if classroom

teachers believe that the results of the attitude survey will reflect on their performance, they might tend to be less objective in their ratings.

For an observation technique to be successful, there must be sufficient opportunity provided to see the behavior being measured, and this of course may take time. The observer must have some experience with student behavior to be able to make correct inferences. This implies that the observer can distinguish typical from atypical behavior and can determine the degree to which the behavior under investigation took place. It is often necessary to train observers in the use of scales, and this, too, can take time. In the case when more than one observer is used, it is also necessary to ensure inter-rater reliability. Another factor that should be considered is the effect an observer can have on classroom behavior. Because formal observation is considered to be a reactive measure, i.e., subjects involved react to the measuring process itself, it is possible that the presence of a classroom observer might create discomfort and thereby alter normal classroom behavior.

For further information, see: Henerson, Morris, and Fitz-Gibbon (1978) and Gronlund (1976).

Projective Techniques

Projective techniques commonly used in clinical settings as a means of personality assessment have also been adapted to explore latent aspects of individuals' attitudes. Unlike previously discussed attitudinal measuring techniques, which present subjects with structured stimuli, the projective technique makes use of ambiguous or unstructured stimuli usually in the form of drawings, pictures, and incomplete sentences. Subjects

are asked to respond freely to the ambiguous stimuli, and through their responses, the examiner seeks to develop a pattern of responses that could reveal aspects of positive or negative attitude.

The rationale behind the projective technique is that when provided with a great deal of freedom of response, subjects will reveal manifestations of their personality characteristics. According to Anastasi (1976), the test material presented to the respondents tends to serve as a screen onto which they "project" their needs, feelings, thoughts, conflicts, and anxieties.

In the field of reading, ambiguous drawings have been designed which depict reading situations without explicitly revealing the facial emotions or expressions of the characters portrayed. A subject is presented with a particular drawing and is asked to make up a story about the picture, its beginning and ending, and to tell something about the characters' feelings and thoughts. The examiner records the answers and looks for response patterns that are characteristic of a particular attitude position. The scoring system used is usually developed based on pretests of various groups of individuals who are known to have varying feelings toward the attitudinal object.

For example, a particular picture may depict a student, whose facial expression is not explicit, browsing through the shelves of the library. A subject with negative attitudes, when asked to make up a story regarding this picture, might comment that this student is miserable because he or she has to choose a book and then read it. In contrast, an individual with highly favorable attitudes might respond that this student is very happy to have the opportunity to select and read a good book.

The use of incomplete sentences is another projective technique which has been used to assess attitude toward reading. A series of partially completed statements, or stems, is presented to a subject who is instructed to complete each statement either verbally or in writing. Examples of incomplete sentences might be:

When it comes to reading I _____ .
To me reading is _____ .
I would rather read than _____ .
Whenever I have to read I _____ .

Since each statement is open-ended, a great deal of variations can be expected from subjects. All responses are analyzed to determine whether they would be considered positive or negative expressions of reading attitudes. Often these statements are mixed together with other open-ended items so as not to make the nature and purpose of the instrument too obvious to the subjects.

It is probably evident by now that projective techniques have certain limitations. They are not suitable for large-scale assessment, and they require time and special administration in the hands of competent individuals who are qualified to score responses and interpret results. If trained specialists are to be employed, the cost factor would tend to be high.

For more information, see: Selltiz et al. (1959); Kerlinger (1973); Lemon (1973); and Anastasi (1976).

Other Sources of Data for Attitude Assessment

There are some attitude evaluation procedures that do not fit neatly specifically under the heading of self-reports, observations, or projective

techniques. This section will highlight some of these approaches and show how they can be used as part of an overall assessment plan to evaluate reading attitudes.

Peer Appraisal

Peer ratings have been used by many investigators as a source of data to supplement and complement other reading attitude measures. The object of this technique is to provide information concerning the ways in which individual students, as well as the group, see members of the class. Peer ratings can take several forms. The most common and direct approach is to ask students to list the names of those classmates who have the most positive and the most negative attitudes toward reading. Often, students are asked to restrict their answers to these choices. When the data is collected, the investigator tallies the number of times each student was named for each category. Another approach used to obtain peer ratings involves the "guess who" technique. In this procedure, students are presented with a list of descriptions and asked to name those students who best fit each description. Examples of such items are:

1. "This person always likes to read."
2. "This person will do anything to avoid reading."

If students have difficulty remembering classmates' names, it is possible to distribute the items together with a class photograph and instruct students to circle the appropriate pictures.

It is quite easy to devise and use the peer rating procedure, and it can be accomplished within one class period. This approach provides the researcher with another dimension of inferential material unavailable from other sources. It should be pointed out, however, that it is often

difficult to determine what standards were used in making the peer ratings. This technique assumes that students know each other sufficiently well and that ample time has been provided for interaction. It also assumes that the peer ratings are made objectively rather than based on subjects' likes and dislikes. Another point to be considered is the question of negative comments. Students' and parents' sensibilities must be kept in mind if this dimension of attitude is to be assessed.

Unobtrusive Measures

The techniques described to this point entail subjects' responses to a series of attitude statements, or they require that a teacher or observer either rate student behavior based on observation or analyze student responses to ambiguous stimuli. All of these approaches are limited in that subjects are usually aware that they are being evaluated. The mere cognizance of this fact could alter their response pattern. Webb et al. (1966) have suggested using unobtrusive measures, that is techniques that are nonreactive in that they are designed to have a limited or at best no effect on the phenomena they are designed to measure.

Among the measures discussed by Webb et al. are physical traces (wear on books, nose prints on glass display cases in museums), archives (voting records), and simple and continued observation. Several of these techniques can be and have been adopted for attitude measurement purposes. For example, observing how students spend their free time in a room containing a well-stocked library might be used as one measure of students' reading behaviors. The books in this library could also be examined to determine which ones are collecting dust and which titles are frequently

being read. Other possible unobtrusive measures could be counting how many students have actually obtained library cards or how many students are willing to buy books through a paperback reading club or book fair. Keeping a tally on the number of books read or the amount of pages read is another technique that has been used to assess student reading attitudes.

All of these measures can certainly be used to supplement other attitude-measuring devices, but they are not without their limitations. As with any standardized measure, the validity of unobtrusive measures must be justified. It might be deceptive to judge the number of pages or books read as an indication of attitude. Suppose John read five books and Mary read three, but Mary's total pages read comes to 1,700 while John's comes to 390. Based on our observation, can we determine who has a more positive attitude? Likewise, it is possible that Tommy is an individual who enjoys reading but that none of the books in the school library appeal to him.

Another question that surrounds the use of unobtrusive measures concerns the ethical issues involved in the use of some of these techniques. To count the number of pages read or keep a record of those students who obtain library cards poses no real problem. But other unobtrusive measures, such as the use of hidden cameras and tape recorders, do have serious ethical implications. It is hoped that any researcher will carefully examine the proposed techniques to determine that subjects' rights are not violated.

Assuming that there are no ethical objections to the use of unobtrusive measures, Anderson et al. (1975) offers a strong agrument for their inclusion as supplementary measures in a total assessment scheme of attitude measurement. Anderson says:

> Almost all measures leave something to be desired and it is at best naive to put all our faith in any single measure of a phenomenon. Social scientists call the process of using multiple measures that overlap in theory but not in inferential weakness triangulation. If we think of a variable as occuping some logical space, the problem is to locate (explain) that variable as precisely as possible. Any single measure, subject as it is to error and contamination, is likely to miss the mark and leave us with an incomplete or erroneous explanation. (P. 457)

Concluding Remarks

We have seen that a wide variety of approaches and techniques is available to measure attitudes toward reading. At this point it may be asked, "Why bother with all these methods? Why not rely strictly on people's behavior to give us the most accurate picture of their attitudes? After all, actions speak louder than words." Actually, however, there is no one-to-one correspondence between expressed attitudes and subsequent behavior. Behavior is based on complex and multifacted factors which can include an individual's attitudes and beliefs. How a person feels about something may or may not be reflected in behavior, and behavior toward an object does not necessarily indicate a specific attitude.

It must be recalled that because attitudes cannot be seen or touched, their existence must be inferred from both verbal and motor behavior. However, we must be careful when we make our inferences. In any given situation, an individual can be influenced by various factors such as social norms, conflicting attitudes, existing beliefs, and situational conditions and pressures. All these factors must be weighed in attempting to understand the occurrence of a particular behavior.

In the case of reading, an individual may indicate an enjoyment of reading and yet seldom read because of other, more pressing demands. While responses to an attitudinal instrument might lead us to believe that a certain individual is likely to be a reader, other circumstances might preclude the reading behavior. Consider the student who may actually enjoy reading and yet is reluctant to do so in front of his or her friends because of peer pressure.

On the other hand, a student might verbally express a negative attitude toward reading and yet read because it is one way to please the teacher. Another example can be found in the student whose score on an attitude scale reveals a dislike for reading as a school activity when in fact this same individual avidly reads paperback books because they are not associated with required reading. Another factor that should be considered is the possibility that our measuring device might have viewed reading in a very narrow sense and presented us with an incomplete picture of students' behavior.

Henerson, Morris, and Fitz-Gibbon (1978) recognized the complexities involved in attitude assessment and stated, "Behaviors, beliefs, and feelings will not always match even when we correctly assume that they reflect a single attitude; so to focus on only one manifestation of an attitude may tend to distort our picture of the situation and mislead us" (p. 13). What is called for then is a multimeasure approach using several measurement techniques. Webb and Salancik (1970) pointed out the importance of employing a multi-indicator approach. "Every data

gathering class--interviews, questionnaires, observation, performance records, physical evidence--is potentially biased and has certain validity threats specific to it. Ideally, we should like to converge on knowledge by simultaneously considering information from multiple data classes" (p. 318). Zirkel and Greene (1976) recommended the use of complementary, not duplicative, sources of data and suggested that reading researchers consider self-report measures, observation reports, peer ratings, and book counts as part of a multimeasure strategy.

VALIDITY

When we select a particular reading attitude scale or instrument, we do so with the expectation that it will provide us with accurate, worthwhile, useful, and appropriate information with respect to individuals' attitudes toward reading. We want to be reasonably certain that our attitude measure adequately and accurately reflects the domain of reading attitude that we have specified and that it is not a measure of something else such as verbal skills or attitude toward a particular class or teacher. In short, we want to be confident that our reading attitude instrument adequately measures the concept it intends to measure and provides us with data relevant to our needs. The extent to which the instrument measures what it is supposed to and accomplishes what it purports to accomplish may be defined as its validity. Anastasi (1976) has written that "the validity of a test concerns what the test measures and how well it does so" (p. 134). She goes on to state that the validity of any instrument "must be determined with reference to the particular use for which the test is being considered" (p. 134).

We seek to establish validity on the basis of evidence. We try to determine the extent to which scores derived on our attitude-measuring instrument actually correspond to what we define and label "attitude toward reading." We look for evidence that allows us to state with a reasonable degree of confidence that our measuring instrument is able to reflect true differences among individuals or groups with respect to their attitudes toward reading. We aim to determine whether our assessment

instrument affords us a basis for drawing accurate inferences regarding attitude toward reading.

Nunnally (1967) has provided some useful observations regarding the concept of validity and validation. "Validation," he says, "always requires empirical investigations, the nature of evidence required depending on the type of validity. Validity is a matter of degree rather than an all-or-none property, and validation is an unending process" (p. 75). He goes on to say, "Strickly speaking one validates not a measuring instrument, but rather some use to which the instrument is put.... Although a measure may be valid for many different purposes...the validity with which each purpose is served must be supplied by evidence" (p. 76).

In some cases, we may look for evidence that helps us determine that individuals' performance on our measure is representative of their behavior in the attitude domain under investigation. Another type of evidence that we seek might help us determine the relationship between individuals' scores on our measure and some criterion that our measure is attempting to predict or estimate. We may also try to gather evidence that helps us understand individuals with respect to a general psychological quality that we label "attitude toward reading." In this case, we seek evidence that helps us ascertain the extent to which certain explanatory qualities or concepts account for performance on our measure.

Since validity is always related to the purposes for which the instrument will be used, different kinds of evidence will be appropriate to different types of instruments. In the final analysis we must determine whether a particular instrument has validity for a specific

purpose, and we must ascertain how effectively the measure might be used to make evaluations and reach conclusions about specific behaviors.

In considering the validity of a reading attitude instrument, we might ask the following questions: How well does this attitude test measure our students' attitudes? Can it be shown that the scores obtained by our students actually correspond to the attitudes that we wish to measure? Can we be reasonably certain that this instrument is actually assessing attitude toward reading and not some other factor? Can this measure really separate those with highly positive attitudes from those with extremely negative attitudes? Can any predictions be made on the basis of the results obtained from our attitude scale? Is this instrument appropriate for all students, or is it more suitable for a particular group?

Different procedures have been employed for estimating validity, and several types of validity are referred to in the professional literature. In its Standards for Educational and Psychological Tests, the American Psychological Association (1974) has identified three basic types of validity that are commonly used: content validity, criterion-related validity, and construct validity. A fourth type of validity, face validity, is sometimes referred to and it will be discussed briefly.

Face Validity

Some reports of attitude scale development mention that a particular instrument has face validity. In essence, this means that based on its superficial appearance, the instrument appears to be measuring the

attitude in question. There is no data or evidence provided to back this claim. We merely examine the surface appearance of the instrument and determine that it looks as if it is measuring what it is supposed to measure and that the items seem relevant and appropriate.

Content Validity

Content validity can be viewed as an estimate of how representative the instrument's content is of the total attitude domain in question. No specific statistical procedure is involved in estimating content validity. What is required is the subjective judgment on the part of the researcher regarding the development and finalization of the instrument's items.

The initial step in determining content validity of a reading attitude measure is to search the professional literature in order to ascertain how the concept has been used in the past. In addition, it is advisable to consult with experts in the subject matter to ensure that items selected for the instrument represent the attitude domain. If we are defining "attitude toward reading" broadly, we may wish to stratify the attitude domain into several major components, e.g., recreational reading and work-study type reading, and then determine whether the items selected adequately represent each stratum.

In looking at any given instrument, we should be concerned with the following kinds of questions regarding content validity. Why were these items selected for this particular instrument? How representative are these items of the total attitude universe? Do these items represent both positive and negative aspects of the attitude continuum? Are the attitude statements included in the instrument in agreement with

our assessment objectives? Are various components of the attitude presented in the instrument? What areas of information might this instrument be omitting? Was the content of this instrument selected on the basis of rational or empirical criteria?

Our efforts of estimating content validity are greatly enhanced when the instrument developer provides us with information regarding the development of the instrument. Unfortunately, this is not often the case as many reading attitude instruments cover this area only superficially. If should be noted that even if we have reasonably determined that the content of the instrument does cover the major attitude areas of concern (e.g., we have analyzed the various attitude statements and have consulted with a panel of judges), we have no basis from our estimate of content validity to conclude that the instrument is in fact measuring reading attitudes as opposed to some other factor. We must employ other types of validity measures, and it is to these that we will now turn our attention.

Criterion-related Validity

As its name implies, criterion-related validity refers to the degree to which an individual's score on an assessment instrument correlates with some other measure of criterion performance. Sometimes this type of validity is referred to as empirical validity. Obviously, another measure must be available that is relevant to our needs and whose validity has already been established. It is fruitless to try to validate a new instrument by making use of another one for which no estimate of validity has been presented.

It may be asked why it is necessary to validate a new instrument when another recognized assessment device already exists. Usually the answer lies in the fact that the new instrument will provide a quicker or simpler substitute for the criterion data. For example, if it could be demonstrated that a twenty-five-item self-report reading attitude scale correlates well with a validated rating scale of behavior that requires a two-week period of observation, it would be to the advantage of many researchers to employ the self-report measure.

Criterion-related validity has been divided into two categories, concurrent and predictive. Concurrent validity refers to the comparison of performance on one instrument with that of a criterion measure that is immediately available. For example, researchers will often use teacher ratings or peer ratings as criteria against which to validate a new reading attitude instrument. Often, the technique called "known groups" is employed in the validation process. A group of students whose attitudes are quite evident (e.g., highly favorable) are administered the new instrument to see if it can effectively discriminate between these individuals and others who hold differing attitudes.

Fox (1969) has also made the distinction between the terms concurrent and congruent validity. If the type of criterion measure differs from the measure being validated (for example, an established self-report Likert scale is being compared to a new observation scale), then the term concurrent validity is appropriate. If, on the other hand, the criterion measure being employed is of the same nature as the measure to be validated, then the term congruent validity is applicable.

In predictive validity we make use of data derived from an instrument to make predictions or forecasts about individuals' future behavior. On the basis of a reading attitude scale we might, for example, wish to predict book-buying habits or classroom library use during a free reading period. We would administer our attitude scale and then make predictions based on the obtained scores. At a later date, we would determine which individuals actually bought books or made use of the library, and we would correlate this finding with our original predicted score. In predictive validity, we establish our attitude groups on the basis of the derived scores, and then we wait for a future point in time and determine whether our predictions were accurate. To the extent that we can make accurate predictions based on the instrument, we can say that the device has predictive validity.

The primary difference between concurrent validity and predictive validity lies in when the criterion measure is administered. In both types of validity, the estimate of validity is the degree of correspondence between the measures employed. If our new instrument does not correlate well with the criterion, then we are faced with the problem of determining wherein lies the fault. It is possible that our new instrument is not performing correctly or that the criterion that we have selected is not appropriate or has not been used appropriately, or our results can be due to a combination of these factors.

Construct Validity

It will be recalled from our earlier discussion about the nature of attitudes that the term construct was used. A construct, according to

Gronlund (1976), is "a psychological quality which we assume exists in order to explain some aspects of behavior" (p. 93). Apart from attitudes, examples of other constructs are intelligence, reasoning ability, and anxiety. Since we can only infer the existence of a construct, we need to accumulate evidence from a variety of sources to support the claim that our instrument is actually measuring the underlying construct.

Construct validity is of concern to us when we wish to further our understanding of the psychological qualities and properties being measured. Gronlund (1976) defines construct validity as "the extent to which test performance can be interpreted in terms of certain psychological constructs" (p. 93). Thus, the construct validity of a reading attitude instrument is the degree to which an individual's performance on the measure can be ascribed to the construct "attitude toward reading." When we administer our instrument, we want to know if our measure is tapping the construct "attitude toward reading." In a sense we are asking, Does our instrument, scale, or technique measure a specific attribute, in our case "attitude toward reading," for which we have no single acceptable criterion? Can we infer from a particular score on our measure that a certain individual actually has highly positive attitudes toward reading? Is our test really measuring the construct of reading attitudes, or might it be measuring something else? According to Henerson, Morris, and Fitz-Gibbon, (1978), "A test with good construct validity can be considered a substitute for actually observing a person displaying a skill or attitude in everyday life" (p. 135).

"Each construct," Gronlund (1976) explains, "has an underlying theory which can be brought to bear in describing and predicting a

person's behavior" (p. 93). More than validating a test or measure, construct validity involves validating the theory underlying the instrument, and this process is carried out by means of logical and empirical methods. The procedure for examining construct validity of a reading attitude measure begins by defining the construct as clearly and precisely as possible. We look at various theoretical positions that underly the construct and specify the domain of observables from which the construct is to be defined. Based upon our theory, we make certain predictions and investigate certain postulated relationships regarding the construct. In essence, we are establishing hypotheses based on our theory and then testing these hypotheses. The extent to which our hypotheses are confirmed leads us to conclude that our measure has a degree of construct validity.

Evidence of construct validity comes from various sources. Mehrens and Lehmann (1973) have stated that if an instrument has construct validity, "people's scores will vary as the theory underlying the construct would predict" (p. 126). In studying the construct of reading attitudes, some researchers have made use of the Taxonomy of Educational Objectives: Affective Domain (Krathwohl, Bloom, and Masia 1964) in developing their instruments. They have based their items upon the theoretical position of attitude development presented in the taxonomy and have devised their items to reflect the hierarchical position reflected therein.

The taxonomy orders objectives along a hierarchical continuum of attitudes which reflects different dimensions of internalization. At its lowest point, the classification begins by describing an attitude from the level of awareness and proceeds to the highest level where the

attitude becomes part of an individual's life and plays a directing and guiding role. When the taxonomy is applied to a reading attitude scale, it is possible to construct items that characterize the different stages or levels of the hierarchy. For example, at the very low level--awareness--subjects could be questioned to determine their degree of awareness of or tolerance for reading. At a higher level, subjects could be asked to indicate the degree to which they value reading as reflected by their willingness to purchase books.

Other researchers, in seeking evidence of construct validity, have made certain predictions based upon what is known about reading attitude and attitude development. They have postulated that individuals with positive attitudes toward reading can be expected to exhibit certain behaviors while those individuals who maintain negative attitudes will demonstrate opposite behaviors. By way of confirming these hypotheses it is possible, for example, to observe students over a period of time and enlist the services of trained psychologists to classify students into positive and negative groups according to criteria based on the underlying theory. Students' attitudes toward reading can then be measured and if the findings correlate well with the observed data, a degree of construct validity has been achieved.

In determining whether a test or instrument has validity for measuring a construct, a researcher often does not rely only on one measure or depend upon verifying one hypothesis. An additional source of construct validity might be other types of predictions. The process of triangulation previously discussed is often employed. Thus, based

upon a theory of reading attitudes, a researcher might expect that reading attitude scores on a newly developed instrument will be positively related to other measures such as teacher judgment, peer ratings, and self-reports of reading attitudes. It can also be expected that if similar reading attitude instruments exist, they, too, should correlate well with the new instrument. Similarly, scores on the new instrument should discriminate between "known groups" of students who hold contrasting views toward reading. In addition, it could be anticipated that the scores on the new instrument should bear little relation to those obtained from another instrument that is designed to assess an unrelated construct.

What is called for, then, in construct validity is the use of multiple indicators upon which to base the claim that a new instrument is indeed measuring the underlying construct. Often elements of content and criterion-related validity will be employed in establishing an instrument's construct validity.

Campbell and Fiske (1959) have suggested the use of a multitrait and multimethod approach to construct validation. They describe two types of validation that are employed in this process. The first type, convergent validation, is based on the premise that if an instrument is a valid measure of attitude toward an object, it should correlate well with other valid measures of trait construct. However, a high correlation between related measures may be due in part to a constant error in the instruments as opposed to a correlation based on a "true score." Thus, Campbell and Fiske have suggested a second process known as discriminant validation. This type of validation requires a developer to show that the scores on

an instrument do not correlate specifically with various measures of other theoretically unrelated constructs. Campbell and Fiske have also suggested using a procedure known as the multitrait method matrix to simultaneously examine reliability, convergent validity, and discriminant validity. This method involves the measuring of two or more traits by two or more methods. A full discussion of this approach is beyond the scope of this work. While the multitrait, multimethod matrix is a promising technique in the field of attitude measurement, it has been rarely employed in the field of reading attitude scale development.

Thus, to summarize with respect to construct validation, we formulate a theory, make predictions, and test hypotheses related to an underlying trait or quality. The extent to which our predictions are confirmed gives us evidence of the validity of our instrument as a measure of the underlying trait or construct. If, however, our predictions are not verified, we must question the validity of our measure or our theory, or both.

Concluding Remarks

We have examined several approaches to determine the validity of a measure. It may help to reiterate some key points regarding validity as presented by Chase (1974).

> A test by itself is neither valid nor invalid. It always has validity in reference to: (a) some specific condition we are trying to observe, and (b) a defined group of people on which the test has been tried out. In either making statements about the validity of a test or reading about tests, we must always note the kinds of criteria for which the test is valid, i.e., we must note the purposes this test has been shown to serve and with whom. Evidence of substantial validity for a test for one purpose may have little to say about the validity, for another, although seemingly related

> purpose. Similarly, evidence of substantial validity for a test used with fourth graders in Brooklyn, New York, may have little correspondence with validity for third graders in Salmon, Idaho. (Pp. 73-74).

In examining various reading attitude scales, we should also be aware of and note other factors that might tend to make the test results invalid for their intended purpose. If, for example, a scale has been developed to assess the reading attitudes of underachieving students, we must determine whether or not the reading level is appropriate for the population in mind. If the items are too difficult in terms of readability, then the instrument may not actually be measuring attitudes at all.

Another factor influencing the validity of an attitude test is known as acquiescence response bias (Tuckman, 1975). In this type of response pattern, a student responds to the attitude statements for reasons that have no relation to the actual content of the statements. Some students, for example, will select a response pattern such as "strongly agree" and check every answer accordingly. Other students may wish to portray themselves as nonconformists and respond with the "strongly disagree" pattern. Items that are clearly written and that are interesting and pleasant to the reader might help to limit the tendency of some respondents to select answers without regard to the items themselves.

Henerson, Morris, and Fitz-Gibbon (1978) list several other factors that tend to diminish our efforts to establish validity of attitude measures. When the predictive validity of an attitude measure is being estimated, it should be recalled that the relationship between expressed attitudes and subsequent behavior is not necessarily strong. Thus, while we might expect a reading attitude instrument to predict future reading

behavior, experience has shown this is not always the case since many variables contribute to behavior. Another factor considered is the lack of self-awareness which subjects may display toward the attitude domain. It is possible that subjects do not possess a sufficient degree of introspection necessary to provide accurate and relevant responses. A third element concerns the possible lack of objectivity involved in administering an attitude scale. This issue is relevant when observation scales are employed. We would expect those reporting the attitudes to be free from bias and provide us with accurate assessments. Finally, a scale that has too few items would be of questionable validity since it would be almost impossible to determine whether the attitude domain has been adequately conceptualized. We would also question results based on a limited number of items because they may be subject to many errors of interpretation.

RELIABILITY

Imagine administering to your students a scale designed to measure their attitudes toward reading. Unknown to you, your college had administered the same instrument the previous day and now both sets of scores are available for inspection. You examine the two sets and notice that there is very little correspondence between them. Consider another example. You and and your colleague are asked to observe and rate an individual's reading behavior during the course of five classroom sessions. You both visit the class at the same time and independently rate the behavior in question and compare your results. Surprisingly, you find that there is little agreement between the findings of the two assessments. The results obtained from the examples above are said to be inconsistent, not generalizable: in short, they are unreliable.

Reliability refers to consistency of scores. More specifically, it is concerned with the degree of agreement or consistency between two independently discerned assessment scores. A correlation coefficient is used to express the degree of relationship between the two sets of scores. Obviously, when all the variables involved in educational and psychological assessment are being dealt with, it is unreasonable to expect scores that are totally consistent. When attitudes toward reading are being measured, it is reasonable to expect variations in measurement results. This may stem from the fact that the attitude held by students may be somewhat unstable or the measuring procedure or instrument may have changed from one assessment to another. Thus, the result of our assessment effort reflects upon the "true" amount of attitude held by students as well as on how accurate a measuring device our scale is.

There is a certain amount of error in all types of measuring devices and in all testing situations. Many factors enter the picture that can influence scores and affect reliability. Emotional strain, fatigue, guessing, intervening learning experiences, poor testing conditions, and forgetting are but a few such factors. When researchers employ different techniques to determine reliability, they are basically assessing how much error is present under different conditions. They are interested in knowing if differences are due to true differences or to chance error. In most cases, according to Gronlund (1976), "the more consistent our test results are from one measurement to another, the less error present and, consequently, the greater the reliability" (p. 106).

If a measure is not reliable, it cannot be valid. An unreliable test that yields inconsistent results cannot be offering valid data because the information obtained is based on random chance factors. At the other extreme, a measure that has a high degree of reliability may be valid, but there is no guarantee of this. The fact that the measure is providing us with consistent results does not mean that it is measuring what we believe it is measuring. It may turn out to be a good measure of something for which it was not intended.

The essence of reliability, then, is to build consistency into our results. We are seeking to produce two sets of data that when correlated, will provide us with an estimate of reliability. Consistency, however, can be thought of in several ways (e.g., over a period of time, over different samples of questions, within the measure itself, or between different raters). Hence, there are different kinds of reliability

estimates available to researchers. What follows is a brief discussion of the common approaches used to estimate reliability of attitude scales.

Test-retest Method

In test-retest reliability, the same attitude measure is administered to a group of individuals on two different occasions. The scores achieved by the same individual on the two measures are correlated, and a reliability coefficient is generated. Thus, test-retest reliability provides an estimate of stability, of consistency, over a period of time. The question of how long a period of time should be allowed between the two test dates is often raised in measurement texts. Ideally, we would want to wait long enough so that responses to the initial measure will not be recalled, but not so long that expected changes would have occurred. Of course, when an instrument is being used to make predictions about behavior, a longer interval between assessments would be in order.

The test-retest technique has its limitations. It is possible that on the basis of the initial administration, an individual might develop sensitivity to the problem under investigation and reconsider issues that normally would not have been considered. This process is sometimes referred to as "reactivity." Also, as a result of having already taken the test once, the individual may be influenced by practice and memory and thus affect reliability. Finally, it should be remembered that in educational settings, it is not always easy to reassemble an intact group for retest purposes.

Alternate-form Method

Alternate-form reliability requires the development of a parallel or equivalent form of an instrument. Both forms are designed to measure the same characteristics, but they are composed of different items. Using the two measures, we obtain one measure of our subjects with the first form and repeat the measurement with the second form. The scores obtained on the two measures are correlated, and a correlation coefficient is produced. If both forms are given on the same occasion, a measure of equivalence is obtained; that is, we have a measure that reflects the degree of consistency between the two assessments. By employing this approach, we are looking for the degree to which the measures are assessing the same aspect of behavior. If the two forms are administered on different occasions, then a measure of stability and equivalence can be produced.

In developing an alternate form, it is essential that it may be truly parallel to the original instrument, conveying the same content and having the same format. Most reading attitude measures do not make use of this type of reliability. It is difficult enough to produce a single valid and reliable instrument, let alone a parallel or equivalent form.

Split-half Method

Split-half reliability makes use of one form of an instrument and requires only a single administration. The test is divided into two comparable halves, and two scores are obtained for each individual. Usually, the even and odd numbers are scored separately so as to ensure

that "equivalent" halves of the test were used and that both sample representative content. This approach to reliability estimation does not involve temporal stability but rather is concerned with consistency of the content sample. In effect, it is a measure of the internal consistency of the instrument.

The two subscores are correlated, and the resulting coefficient is an estimate of the reliability of a test that is half the length of the original. In order for the reliability of the entire test to be estimated, the Spearman-Brown prophecy formula is applied. It should be noted that this formula will tend to overestimate the reliability that would result had the test-retest or equivalent form procedure been used.

Internal-consistency Method

One of the limitations of the split-half method is that it measures the agreement between only two halves of the whole test. Other methods have been developed that examine the internal consistency of all items that make up a measure. Cronbach's Coefficient Alpha (1970) is perhaps the most popular and basic formula used to determine how strongly items are related to each other. Another version of this formula is known as KR-20 and was developed for dichotomous items. Nunnally and Durham (1975) and Borgatta (1979) support the use of Coefficient Alpha because, in most situations, it provides a good estimate of reliability. It should be realized, however, that because this method of reliability is based upon a single administration, the effects of fluctuations in attitude and other psychological and enviromental factors will not be included in the reliability estimate.

Interjudge Reliability

Some reading attitude measures call for observers to rate behavior in naturalistic settings or for judges to score projective test responses of individuals in clinical settings. In each case, a score of error involving the raters' observation may be present. It is necessary, therefore, to obtain an estimate of interjudge reliability. This is accomplished by having each rater present to assess the same behavior. The independent ratings of each judge are then compared, and the resulting coefficient gives an estimate of the degree of consistency in reliability between observers.

Concluding Remarks

Some concluding remarks about the reliability of attitude instruments are in order. Generally speaking, attitude measures provide estimates of reliability that are lower than those of ability or general knowledge tests because the latter constructs are more stable while the former are somewhat more flexible and subject to change. In considering making use of an existing reading attitude scale, we should seek to determine what reliability information is available. Typically, only one estimation of reliability is found in most reading attitude scales when, in fact, additional estimates would allow us to make better judgments.

It is useful to know upon what population the reliability estimates were conducted. An instrument that claims to be suitable for elementary school students and provides a reliability estimate based only on the results of fourth graders' work might not prove to be as reliable when used with eighth graders. If we select a reading attitude instrument

whose reliability was determined on a fairly large and heterogeneous sample (e.g., suburban and inner-city high school and junior high students, high achievers, and low achievers) and then administer the measure to a more restricted sample (e.g., tenth grade high-achieving members of a suburban high school book club), the reliability coefficient based on the heterogeneous sample would overestimate the reliability obtained from our more limited sample. As Quinn and Gonzales (1979) stated: "Ideally, reliability estimates should be based on a sample as similar as possible to the sample one plans to study" (p. 422).

Whenever possible, it is advisable to examine the attitude instrument and determine whether there is a sufficient number of items tapping the attitude object. An attitude measure with only a few items provides only a limited sample on which to make judgments and may not be representative of the attitude domain under investigation. In general, the more items, the higher the reliability, assuming that the additional items or questions are similar in nature to the original ones. It is also possible to increase the reliability of an attitude instrument by adding another response option. For example, a measure consisting of four response options per item could have its reliability increased by adding a fifth response option to each item.

Apart from variations within the test, it is important for the tester to create an atmosphere conducive to testing. The tester who can reduce distractions, limit fatigue, and alleviate anxiety on the part of students will help to ensure that consistent results will be produced.

EMPLOYABILITY

Apart from validity and reliability, other practical matters must be considered in selecting and using a particular assessment device. The term usability, or employability, is often cited to refer to these considerations, and several factors are subsumed under this category. The determination of an instrument's usability requires subjective judgment based on the available information. In most cases, it is necessary for us to actually examine the instrument before we can make a decision as to its usability.

Imagine that we have a reading attitude instrument before us that we wish to consider for our own use. What are some issues related to employability with which we should be concerned? First, it is necessary to examine the instrument to determine how easy it is to administer and score. The time factor of administration should be considered along with the attention span of the students upon which the instrument will be used. The procedure for scoring should be clear so as to minimize any scoring error. Since most reading attitude scales are not commercially produced, scoring is often left to the teacher. It can be helpful if the test author(s) provide(s) information about the feasibility of machine or computer scoring. Naturally, if special procedures for administration or scoring are required, such as the need to make use of judges or observers, then these should also be considered.

The instructions to the administrator as well as the directions to the students should be clear and precise. Practice exercises should be provided in all instruments but especially in attitude scales

because the response format is most often new to students and can tend to be confusing.

Suggestions should be provided on how to convince students of the importance of their participation. Motivational strategies should also be offered which would help build rapport and assure students that their answers will be kept confidential. Needless to say, the readability of items should be checked to determine whether it is suitable to all students in the test (target) population.

The layout of items is another factor with which to be concerned. The size of print, the clarity of pictures, and the spacing of items should be considered. For youngsters, a separate answer sheet could prove to be confusing in that they have to recall their answers from the instrument and then mark their responses in the appropriate place on the answer sheet.

Assume that the measure has been administered and that we have now completed scoring the papers. Is there information provided that will help us interpret the scores? Which score is considered to reflect a positive attitude and which score would indicate a negative attitude? Can the instrument be used for diagnostic purposes to indicate specific areas of student attitude that need improvement? Are there suggestions for how the scale could be used in a pretest-posttest design so that it might be possible to determine whether a new instructional procedure is producing desired affective outcomes?

GUIDE FOR EVALUATING A READING ATTITUDE MEASURE

As was mentioned in the introduction, this work is divided into two parts. The first section presented thus far has dealt with attitudes in general and reading attitudes in particular. Various issues related to measuring attitudes toward reading have been explored, and different approaches by which reading attitudes can be assessed have been considered. The second part of this work will present a representative sample of reading attitude measures available for researchers' use.

Before these measures are presented, however, this first portion of the text will conclude with a guide for evaluating a reading attitude instrument. It is hoped that the following questions can highlight the major points presented thus far and can serve as a checklist for potential users of reading attitude measuring devices.

Not all of the following questions will be applicable to each instrument, but they should serve as a general guide for those who wish to consider a particular measure. Based on the information about to be provided in the next section, it may not be possible to answer all of the following questions and further reading may be required, but a least a basic framework will have been offered which will deal with salient issues related to selecting and evaluating a reading attitude measure.

Assume that you are about to select or are seriously considering using a particular instrument or technique by which to measure attitudes toward reading. After examining the measure and/or reading further about its development but before making your final decision, try to answer the following questions:

1. Is there a particular reason why you are interested in this measure as opposed to another one?

2. What aspect of "reading attitude" is it measuring?

3. Is a formal definition of "attitude" given?

4. Of the three components of attitude (affective, cognitive, and behavioral), which aspect does it focus upon?

5. Does the instrument fit the objectives and meet the criteria that you have set?

6. Does it discriminate against poor readers?

7. Can it be used for diagnostic purposes?

8. Can it be used as part of a large-scale assessment program?

9. Is it suitable for only a particular group of students, or does it have wide applicability?

10. Is any information provided on how the items were developed?

    a) Was a theory, model, or framework used to guide in the development of items?
    b) Was a specific population consulted in the development of items? Were ideas sought from experts in the field, teachers, students, or parents?
    c) Were the items pilot-tested, and was item analysis conducted?
    d) Is information provided about the population used in developing the measure? For example: number of subjects involved and method of selection, age level, grade level, socioeconomic background, ability range, sex, urban-rural.
    e) Can you be reasonably sure that the measure is applicable and suitable for your particular population?

11. Is evidence provided about the measure's validity?

    a) From its surface appearance, does it seem to be measuring attitudes?
    b) Do the items all seem relevant and appropriate?
    c) Do the items reflect a proper sampling of the attitude universe?
    d) Was a theory of reading attitude postulated? Were hypotheses confirmed based on logical or empirical methods?
    e) Is evidence provided which indicates that the instrument discriminates between "known groups" who hold opposite viewpoints about reading?
    f) Does the instrument compare satisfactorily with other assessment instruments that measure the same construct?
    g) Have multiple indicators been used upon which to demonstrate the measure's validity?

12. Is information provided about the measure's reliability?

    a) Has one of the following reliability measures been used: test-retest, alternate form, split-half, or internal-consistency?
    b) Is more than one measure of reliability offered?
    c) If judges are used, are provisions made to determine that the scoring is systematic and unbiased?
    d) Have inconsistent items been removed from the instrument, and have unclear items been refined?

13. Is evidence provided about the measure's employability?

    a) Can it be administered in a reasonable amount of time?
    b) Does it require administration on the part of someone with specialized training?
    c) Are any special provisions required in its administration?
    d) Are the directions clear? Is the response made understandable or confusing? Is the language simple enough?
    e) Are subjects free to express themselves when they feel threatened?
    f) Is it easy to score? Can a particular score be easily interpreted? Is information provided about which score reflects a positive/negative attitude?
    g) Is one total score provided, or are part scores also produced?
    h) Is any normative information provided?

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APPENDIX:

SOURCEBOOK OF

READING ATTITUDE INSTRUMENTS

San Diego County Inventory of Reading Attitudes

Primary Pupil Reading Attitude Inventory, by Eunice N. Askov

Incomplete Sentence Projective Test, by Thomas Boning and Richard Boning

Attitudes Toward Reading Scale: Pennsylvania Right to Read, by Dennis Deck and J. Jackson Barnette

Reading Attitude Questionnaire, by Jerry B. Fiddler

70-Item Attitude Instrument, by Larry D. Kennedy and Ronald S. Kalinski

Mikulecky Behavioral Reading Attitude Measure, by Larry Mikulecky

Primary Reading Attitude Index, by Annelle Powell

Children's Attitude Toward Reading Test (CHART), by Paul S. Redelheim

A Scale of Reading Attitude Based on Behavior, by C. Glennon Rowell

The Reading Attitudes Inventory, by Harry W. Sartain

Reading Attitude Scales, by William H. Teale and Ramon Lewis

Compensatory Reading Project: Attitudes Toward Reading, by Donald A. Arismen, Michael I. Waller, and Gita Wilder

Rhody Secondary Reading Attitude Assessment, by Regina Tullock-Rhody and J. Estill Alexander

SAN DIEGO COUNTY

INVENTORY OF READING ATTITUDES

TO BOYS AND GIRLS:

This sheet has some questions about reading which can be answered YES or NO. Your answers will show what you usually think about reading. After each question is read to you, circle your answer.

INSTRUCTIONS TO PUPILS

Draw a circle around the word YES or NO, whichever shows your answer.

Sample A

Yes No Do you like to read?

If you like to read, you should have drawn a circle around the word YES in Sample A; if you do not like to read, you should have drawn a circle around the word NO.

Sample B

Yes No Do you read as well as you would like to?

If you read as well as you would like to, you should have drawn a circle around the word YES in Sample B; if not, you should have drawn a circle around the word NO.

Yes No 1. Do you like to read before you go to bed?

Yes No 2. Do you think that you are a poor reader?

Yes No 3. Are you interested in what other people read?

Yes No 4. Do you like to read when your mother and dad are reading?

Yes No 5. Is reading your favorite subject at school?

Yes No 6. If you could do anything you wanted to do, would reading be one of the things you would choose to do?

Yes No 7. Do you think that you are a good reader for your age?

Yes No 8. Do you like to read catalogues?

Yes No 9. Do you think that most things are more fun than reading?

Yes No 10. Do you like to read aloud for other children at school?

Yes No 11. Do you think reading recipes is fun?

Yes No 12. Do you like to tell stories?

Yes No 13. Do you like to read the newspaper?

Yes No 14. Do you like to read all kinds of books at school?

Yes No 15. Do you like to answer questions about things you have read?

Yes No 16. Do you tnink it is a waste of time to make rhymes with words?

Yes No 17. Do you like to talk about books you have read?

Yes No 18. Does reading make you feel good?

Yes No 19. Do you feel that reading time is the best part of the school day?

Yes No 20 Do you find it hard to write about what you have read?

Yes No 21. Would you like to have more books to read?

Yes No 22. Do you like to read hard books?

Yes No 23. Do you think that there are many beautiful words in poems?

Yes No 24. Do you like to act out stories that you have read in books?

Yes No 25. Do you like to take reading tests?

KEY: Questions 2, 9, 16, and 20 should be answered NO; the remaining questions should be answered YES.

Further information can be obtained from Glen N. Pierson, San Diego County Department of Education, 6401 Linda Vista Road, San Diego, CA 92111.

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PRIMARY PUPIL READING ATTITUDE INVENTORY

by Eunice N. Askov

In the inventory there are 30 pages, or 30 choices between two pictured activities. Of the 30 choices, 18 involve a reading activity. The rest are distractors--choices that don't involve reading.

The pictures represent the following situations in each version:

Girl's Version	Boy's Version
Reading Activities	
Reading a book indoors-p. 6	Reading a book indoors-p. 37
Reading a book outside-p. 7	Reading a book outside-p. 38
Recreational Activities	
Swimming-p. 4	Swimming-p. 35
Climbing on monkey bars-p. 4	Climbing on monkey bars-p. 35
Playing with dolls-p. 5	Playing with toy trucks-p. 36
Swinging on a swing-p. 7	Swinging on a rope-p. 38
Riding a bike-p. 9	Riding a bike-p. 40
Jumping rope-p. 11	Climbing a tree-p. 42
Drawing a picture-p. 16	Drawing a picture-p. 47
Making a puppet-p. 18	Building a model airplane-p. 49
Watching TV-p. 18	Watching TV-p. 49

Each of the two reading pictures is paired with each of the nine other pictures, making a total of 18 opportunities to choose reading as a favorite activity.

INSTRUCTIONS TO SUBJECTS

Does every girl have a booklet with pictures of girls, and does every boy have one with pictures of boys? Now get out a pencil and one crayon. In pencil, print your first and last name, grade, teacher, and the date. (Put this information on the board.)

First look up here while I go through the pictures so you understand what each one is showing. (Explain what activity is portrayed in each picture both for the girl's and boy's versions. It is helpful to have cut out a picture of each activity to explain to the pupils what each picture represents.)

Now let's look at the first page of your booklet. With your crayon put a big X through the picture of the activity you like best.

If you like to climb on the monkey bars better than you like to go swimming, put an X through the picture of the child on the monkey bars with your crayon. If you like to go swimming better than climbing on the monkey bars, put an X through the picture of the child going swimming.

Do the same thing on the rest of the pages. Choose which of the two activities you like to do better on each page and put an X through that picture with your crayon. Be sure you choose only one activity on a page, and be sure you mark one on every page. Don't look back to see what you have chosen earlier--just choose between the two pictures on each page. All of the pictures will appear in your booklet several times so don't worry if some of the pages seem alike.

SCORING

Count the total number of times that reading was chosen over other activities. The highest possible score a child can receive is 18. In previous studies (Askov, 1972) mean scores have tended to range from 8 to 13 with girls usually scoring higher than boys. Grade placement (Grade 1 as opposed to Grade 3) has not been found to have a significant relation to attitude toward recreational reading.

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The entire "Primary Pupil Reading Attitude Inventory" can be ordered from the Kendall/Hunt Pub. Co., Dubuque, Iowa.

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INCOMPLETE SENTENCE PROJECTIVE TEST

by Thomas Boning and Richard Boning

1. Today I feel.....
2. When I have to read, I.....
3. I get angry when.....
4. To be grown up.....
5. My idea of a good time is.....
6. I wish my parents knew.....
7. School is.....
8. I can't understand why.....
9. I feel bad when.....
10. I wish teachers.....
11. I wish my mother.....
12. Going to college.....
13. To me, books.....
14. People think I.....
15. I like to read about.....
16. On weekends I.....
17. I'd rather read than.....
18. To me, homework.....
19. I hope I'll never.....
20. I wish people wouldn't.....
21. When I finish high school.....
22. I'm afraid.....
23. Comic books.....
24. When I take my report card home.....
25. I am at my best when.....
26. Most brothers and sisters.....
27. I don't know how.....
28. When I read math.....
29. I feel proud when.....
30. The future looks.....
31. I wish my father.....
32. I like to read when.....
33. I would like to be.....
34. For me, studying.....
35. I often worry about.....
36. I wish I could.....
37. Reading science.....
38. I look forward to.....
39. I wish.....
40. I'd read more if.....
41. When I read out loud.....
42. My only regret.....

Suggested preliminary instructions: "Here is YOUR chance to write exactly the way you feel. You may write anything you like, but it must

be just what you think." Children should be encouraged to answer all questions, to do them in order, and to do them rapidly.

Additional information can be found in: Boning, Thomas; Boning, Richard. I'd Rather Read Than ... The Reading Teacher, v10, pp. 196-200, April 1957.

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ATTITUDES TOWARD READING SCALE:

PENNSYLVANIA RIGHT TO READ

by Dennis Deck and J. Jackson Barnette

There are two forms of the scale: for grades 1-3 and for grades 4-6. The primary scale is read to the child and has a three choice format on a hand-scored answer sheet. The intermediate scale is read by the child and has a five choice format on a machine-scorable answer sheet.

Attitudes Toward Reading: Primary Scale

Please make sure that everyone has an answer sheet and a pencil. Tell the children that this is a survey to find out how they feel about books and reading. There are no right or wrong answers, they are to answer the way they feel. They should use their pencil to circle the answer they choose.

Please read each sentence twice and leave time for them to answer The first seven items are questions. Read the first question which is an example. Instruct them to circle "never" if they never jump rope, "sometimes" if they jump rope once in awhile, and "a lot" if they do it quite often.

1. How often do you jump rope?

   never sometimes a lot

2. How much do you read at home?

   none a little a lot

3. How often do you go to the library?

   never sometimes a lot

4. How many library books do you get from the library each week?

   none a few many

5. How many books of your own do you have at home?

   none a few many

6. How much do your parents read?

   none a little a lot

7. When you were younger, how often did your parents read to you?

never sometimes a lot

For the remaining items, the students will have to listen to the sentence and decide if they don't really feel that way, feel that way a little, or feel that way a lot. (The choices are "not really", "a little", and "a lot.") Read number 8. Instruct them to circle "a lot" if they like ice cream a lot, "a little" if they like ice cream a little, and "not really" if they don't like ice cream. Read number 9. If they really do like cookies, they should circle "not really." If the children have no questions, please proceed.

8. I like ice cream.

not really a little a lot

9. I hate cookies.

not really a little a lot

10. I love reading.

11. I feel good after I've read a book.

12. I get tired of reading.

13. I would be happy to get a book for my birthday.

14. Reading school books is a waste of time.

15. Reading stories can be a lot of fun.

16. Playing is more fun than reading.

17. It is fun to read books.

18. I like to find books to read.

19. I hate to read.

20. I would rather play than read.

21. I can learn things from reading books.

22. I think reading books is silly.

23. I want to be absent from reading class.

24. I want more time in school to read.

25. I get tired of reading stories.

26. It is good to know how to read.

27. I hate reading books in school.

28. I would rather read than work on other things.

29. Reading is the worst part of my day.

Attitudes Toward Reading: Intermediate Scale

This is a survey to find out how you feel about books and reading. There are no right or wrong answers, just answer the way you feel. Please use a pencil to mark your answers on the answer sheet. Here is an example:

How often do you play baseball?

never	sometimes	often	very often
A	B	C	D

If you think that "often" is the best choice for you, then you would fill in the slot marked "C" on the answer sheet with your pencil. If you never play baseball, then you would mark "A" on your answer sheet. Do not mark the slot under the letter "E" for questions 1 through 6.

1. How often do you read at home?

never	sometimes	often	very often
A	B	C	D

2. How often do you go to the library?

never	sometimes	often	very often
A	B	C	D

3. How many library books do you read each week?

none	1	2	3 or more
A	B	C	D

4. How many books of your own do you have at home?

none	a few	many	very many
A	B	C	D

5. How often do your parents read?

never	sometimes	often	very often
A	B	C	D

6. When you were younger, how often did your parents read to you?

never	sometimes	often	very often
A	B	C	D

When you read each sentence on this page, decide if you agree or disagree with it. For all the sentences, choose between the following:

strongly disagree	disagree	not sure	agree	strongly agree
A	B	C	D	E

For example, read number 7 below. If you really like ice cream then mark "E" for strongly agree on the answer sheet. If you sort of like ice cream, mark "D" for agree. If you don't like ice cream mark "B" for disagree. If you are not sure, mark "C".

Read number 8. If you really do like cookies, then mark "A" or "B" to disagree with the sentence.

7. I like ice cream.

8. I hate cookies.

9. There should be more time in the day for reading.

10. I hate reading.

11. Reading stories can be very exciting.

12. Reading is something I can do without.

13. Playing is more fun than reading.

14. Most books are very boring.

15. Reading is the best part of my day.

16. I do not like to spend my time reading.

17. I love to read.

18. I think we spend too much time on reading in school.

19. Reading is the worst part of my day.

20 I like to find library books to read.

21. Reading is a good way to spend my free time.

22. Stories are usually not good enough to finish.

23. I can learn many things from reading books.

24. Reading a book is rewarding to me.

25. There are many interesting things to read.

26. It is fun to read books.

27. Reading school books is a waste of time.

28. I would rather not read at all.

29. I would rather read than work on other things.

30. I don't like to get books for my birthday.

The first six items ask for descriptive information. The remaining items are worded either positively or negatively, where positive attitudes are indicated by agreement with positively worded items and disagreement with negatively worded items. Each item may be scored as follows:

Grades 1-3	not really	a little	a lot
positively worded	1	2	3
negatively worded	3	2	1

Grades 4-6	(disagree)	A	B	C	D	E	(agree)
positively worded		1	2	3	4	5	
negatively worded		5	4	3	2	1	

The negatively worded items are:

Grades 1-3

12, 14, 16, 19, 20, 22, 23, 25, 27, 29

Grades 4-6

10, 12, 13, 14, 16, 18, 19, 22, 27, 28, 30

All otners are positively worded. Do not score the sample items.

Additional information can be found in: Deck, Denis; Barnette, J. Jackson. Measuring Attitudes Toward Reading in Large Scale Assessment. University Park: Pennsylvania State University, Center for Cooperative Research with Schools, April 1976. 21 p. (ERIC Document Reproduction Service No. ED 128 407).

READING ATTITUDE QUESTIONNAIRE

by Jerry B. Fiddler

As you go to junior high school you will have many opportunities for different classes, including mini-courses.

To help your teachers plan for your future, they need to know more about you: your likes, your dislikes, your interests, and your hobbies.

To help determine your feelings about a number of different things, we would like you to respond to a questionnaire. To be sure that you know how to mark it, though, I'd like you to look at a sample page first. (Distribute sample page.)

There are no right or wrong answers to these items. Be sure to mark them carefully, though, so that we can learn more about you and others your age. Let's try a few of the sample items.

Sample Items

1.	You like winter better than any other season.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
2.	Adults are always meaner than kids.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
3.	You usually feel hungry right before breakfast.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
4.	You think that green is the prettiest color.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
5.	It takes courage to parachute from a plane.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree

READING ATTITUDE QUESTIONNAIRE

1.	Kids don't like strict parents.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
2.	Clean-up projects to help the environment interest you.	Stongly Agree	Agree	Not Sure	Disagree	Strongly Disagree

3.	It's embarrassing to be scolded by a grown-up in front of your friends.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
4.	You usually enjoy getting new books and stories to read.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
5.	It's scary to think about growing up.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
6.	You'd like to be able to pick out and buy all of your own clothes.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
7.	You think that most teachers are really nice people.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
8.	You often listen carefully when others are talking about what they've read.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
9.	Most sixth-graders don't believe in Santa Claus.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
10.	Being on a plane in rough weather would be exciting.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
11.	When someone you're with bakes cookies, you like to eat the dough before it's baked.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
12.	Boys like to smoke because they think they're "big stuff"	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
13.	When you do a good job of reading something, you usually feel good.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
14.	You sometimes wish that you were a little kid again.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree

15.	It seems to take you a long time to learn some things.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
16.	You spend a lot of your spare time reading.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
17.	Sixth-grade kids don't like smaller kids hanging around them.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
18.	You are friends with almost everyone in your class.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
19.	When you're having trouble understanding something when you're reading, you just skip over it.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
20.	You like to write with a pen better than with a pencil.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
21.	You wish you were rich.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
22.	You like to read.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
23.	You've felt like running away from home before.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
24.	You hate teachers who make you feel like a little kid.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
25.	You would rather eat candy for dessert than cake.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
26.	You like pepperoni on pizza.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
27.	Girls seem to be always combing their hair.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree

28.	Kids often pass notes around in class when they get a chance.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
29.	You can't wait for week-ends to come.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
30.	You like to watch educational programs on T.V.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
31.	Grown-ups disgust you when they make you get your hair cut.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
32.	You only read books when you have to.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
33.	Football is the favorite sport of most boys.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
34.	When you're in a bad mood, you're mean to your friends.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
35.	You fake being sick sometimes.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
36.	You sometimes volunteer for extra reading assignments.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
37.	Grandparents are nice to their grandchildren.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
38.	You like to eat chocolate.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
39.	Your desks at school are usually too big.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
40.	When a class is boring you like to entertain yourself by daydreaming.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
41.	You get nervous when it's time to take a test.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree

42.	You only use dictionaries and encyclopedias when you're made to.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
43.	Hamburgers and coke are your favorite foods.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
44.	You think that reading is worthwhile.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
45.	Your hardest subject is math.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
46.	Making popcorn without grown-ups around is fun.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
47.	You like eating potato chips better than mashed potatoes.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
48.	It makes you feel terrible when you get a low score on a test.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
49.	You get a kick out of hearing yourself on a tape recorder.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
50.	You spend a lot of time reading on your own.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
51.	If you were free to learn anything you wanted, you wouldn't mind school.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
52.	You like kids who can tell funny stories.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
53.	Sometimes you wish you could be hypnotized.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
54.	You think science class is fun.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
55.	It's hard for you to remember the names of new people you meet.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree

56.	You wish that you could read more books.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
57.	You like to watch television almost every day.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
58.	You have a hobby that you enjoy.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
59.	It's best to have only a couple of friends at a time.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
60.	You like reading class in school.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
61.	Sometimes during history class you wish that you lived long ago.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
62.	You feel that you're expected to read too much.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
63.	You'd like to have gym class more often.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
64.	Going to the dentist is scary to you.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
65.	Most kids would rather have young teachers than older ones.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
66.	Living where you do makes you feel good.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
67.	Your dreams scare you.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
68.	You'd like to join a book club.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
69.	Chocolate milk is better tasting than white milk.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
70.	Your desk is usually neat.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree

71.	The first day of school each year makes you happy.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
72.	Books help you learn about how you should act in life.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
73.	You try to get your homework done on time.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
74.	You would like to be thought of as being popular.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
75.	You pay close attention during reading class.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
76.	When you can do something really well, you're a show-off.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
77.	Cartoons make Saturday mornings special.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
78.	You don't like to go to bed until late at night.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
79.	You like to get new things to read because you never seem to have enough.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
80.	You enjoy writing names and stuff on the backs of tablets.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
81.	Working on Saturdays is terrible.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
82.	You would probably study on your own even if teachers didn't give homework.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
83.	School starts too early in the morning.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
84.	Art class is one of your favorite classes.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree

85.	You would rather take pills when your sick than have a shot.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
86.	If you had your way kids wouldn't have to go to school.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
87.	You hate the thought of your relatives kissing you.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
88.	When you have the spare time, you would rather read than do most other things.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
89.	Chocolate candy is better than any other kind.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
90.	You'd rather buy your clothes in a small store than in a big department store.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
91.	Sometimes you get in quiet moods when you don't want to talk to anybody.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
92.	You often worry about how you look.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
93.	Guitar playing is popular with kids your age.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
94.	You like to go back to school after summer vacation.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
95.	Reading during your spare time is fun for you.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
96.	Girls seem smarter than boys.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree

97.	Kids don't know what grown-ups expect of them most of the time.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
98.	Math next year is going to be hard for you.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
99.	Most kids think that English class is useless.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
100.	You are ashamed when you don't finish your homework.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree

Worksheet For Scoring the Reading Attitude Questionnaire

4.	_____	50.	_____
8.	_____	56.	_____
13.	_____	60.	_____
16.	_____	62.	_____ (negative)
19.	_____ (negative)	68.	_____
22.	_____	72.	_____
32.	_____ (negative)	75.	_____
36.	_____	79.	_____
42.	_____ (negative)	88.	_____
44.	_____	95.	_____

Total _____

Additional information can be obtained in: Fiddler, Jerry Ben. The Standardization of a Questionnaire to Ascertain the Attitude Toward Reading of Sixth-Grade Pupils. Ed. D. dissertation, State University of New York at Buffalo, 1974. (University Microfilms International Order No. DCJ74-14298, 203 p.)

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70-ITEM ATTITUDE INSTRUMENT

by Larry D. Kennedy and Ronald S. Halinski

1. Reading is difficult for me.
2. I read only what I have to.
3. Reading helps me form opinions.
4. I would rather read than do anything else.
5. Authors seem to like words that are hard to understand.
6. I can forget my problems when I read.
7. It takes me a long time to read anything.
8. Reading broadens my imagination.
9. There are very few things that I find interesting to read.
10. Reading entertains me.
11. I dislike reading because most of the time I am being forced to read.
12. I don't believe there's anyone more interested in reading than I am.
13. I read too slow.
14. Reading has always been my favorite pastime.
15. Reading gives me self-confidence.
16. It's hard to just sit and read.
17. Reading helps me find a better way to communicate with people.
18. I have very little trouble understanding what I read.
19. Reading is very important to me.
20. I don't care to take the time to read.
21. I can learn much about my future from reading.
22. I am a good reader.
23. I always finish what I start to read.

24. Reading broadens my mind.
25. Reading is easy.
26. I like to read to learn about people.
27. Reading bores me.
28. I usually do not understand what is happening in a story.
29. Reading keeps me informed.
30. Reading is a fun way of learning.
31. Reading is too complicated.
32. Reading improves my vocabulary.
33. I have never found an assigned reading to be boring.
34. I read a lot.
35. Reading helps me understand problems that other people have.
36. Reading just doesn't appeal to me.
37. Books are an artistic expression.
38. When I read I can't keep my mind on the subject.
39. I can't sit still long enough to read.
40. Reading turns me off.
41. Reading helps me understand my personal problems.
42. Reading stimulates thought.
43. I have yet to read anything which I did not find interesting.
44. I can learn much about my future from reading.
45. Reading helps me to identify with people I want to be like.
46. Reading is difficult because of those big words.
47. I am seldom in a mood to read.
48. I like to read about other people's experiences in life.
49. I sometimes become a character in the book I am reading.
50. I get tired when I read.

51. When I read there are very few words I do not understand.

52. I like keeping up on new ideas.

53. Reading relaxes me.

54. Reading is a pleasant pastime.

55. I have to read material over and over to get something out of it.

56. I am a very fast reader.

57. By reading I meet people and places I have never met before.

58. I enjoy taking tests over what I read.

59. It's hard to get interested in reading things which are assigned.

60. I read for hours at a time.

61. Whenever I have some free time I always read.

62. I hate to read.

63. I seldom get any new ideas from reading.

64. I am an avid reader.

65. Reading is always an exciting experience.

66. Reading takes too much concentration.

67. No one ever had to force me to read anything.

68. Reading helps you think about things in a new way.

69. I like to read.

70. All books are interesting.

Students respond to the statements on a four-point Likert scale, responses being Strongly Agree, Agree, Disagree, and Strongly Disagree.

Additional information can be obtained in: Kennedy, Larry D.; Halinski, Ronald S. Measuring Attitudes: An Extra Dimension. Journal of Reading, v18 n7, pp 518-522, April 1975.

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MIKULECKY BEHAVIORAL

READING ATTITUDE MEASURE

by Larry Mikulecky

On the following pages are 20 descriptions. You are to respond by indicating how much these descriptions are either unlike you or like you. For "very unlike" you, circle the number 1. For "very like" you, circle the number 5. If you fall somewhere between, circle the appropriate number.

Example

You receive a book for a Christmas present. You start the book, but decide to stop halfway through.
VERY UNLIKE ME 1 2 3 4 5 VERY LIKE ME

1. You walk into the office of a doctor or dentist and notice that there are magazines set out.

   VERY UNLIKE ME 1 2 3 4 5 VERY LIKE ME

2. People have made jokes about your reading in unusual circumstances or situations.

   VERY UNLIKE ME 1 2 3 4 5 VERY LIKE ME

3. You are in a shopping center you've been to several times when someone asks where books and magazines are sold. You are able to tell the person.

   VERY UNLIKE ME 1 2 3 4 5 VERY LIKE ME

4. You feel very uncomfortable because emergencies have kept you away from reading for a couple of days.

   VERY UNLIKE ME 1 2 3 4 5 VERY LIKE ME

5. You are waiting for a friend in an airport or supermarket and find yourself leafing through the magazines and paperback books.

   VERY UNLIKE ME 1 2 3 4 5 VERY LIKE ME

6. If a group of acquaintances would laugh at you for always being buried in a book, you'd know it's true and wouldn't mind much at all.

   VERY UNLIKE ME 1 2 3 4 5 VERY LIKE ME

7. You are tired of waiting for the dentist, so you start to page through a magazine.

   VERY UNLIKE ME 1 2 3 4 5 VERY LIKE ME

8. People who are regular readers often ask your opinion about new books.

   VERY UNLIKE ME 1 2 3 4 5 VERY LIKE ME

9. One of your first impulses is to "look it up" whenever there is something you don't know or whenever you are going to start something new.

   VERY UNLIKE ME 1 2 3 4 5 VERY LIKE ME

10. Even though you are a very busy person, there is somehow always time for reading.

    VERY UNLIKE ME 1 2 3 4 5 VERY LIKE ME

11. You've finally got some time alone in your favorite chair on a Sunday afternoon. You see something to read and decide to spend a few minutes reading just because you feel like it.

    VERY UNLIKE ME 1 2 3 4 5 VERY LIKE ME

12. You tend to disbelieve and be a little disgusted by people who repeatedly say they don't have time to read.

    VERY UNLIKE ME 1 2 3 4 5 VERY LIKE ME

13. You find yourself giving special books to friends or relatives as gifts.

    VERY UNLIKE ME 1 2 3 4 5 VERY LIKE ME

14. At Christmas time, you look in the display window of a bookstore and find yourself interested in some books and uninterested in others.

    VERY UNLIKE ME 1 2 3 4 5 VERY LIKE ME

15. Sometimes you find yourself so excited by a book you try to get friends to read it.

    VERY UNLIKE ME 1 2 3 4 5 VERY LIKE ME

16. You've just finished reading a story and settle back for a moment to enjoy and remember what you've just read.

    VERY UNLIKE ME 1 2 3 4 5 VERY LIKE ME

17. You choose to read nonrequired books and articles fairly regularly (a few times a week).

    VERY UNLIKE ME 1 2 3 4 5 VERY LIKE ME

18. Your friends would not be at all surprised to see you buying or borrowing a book.

    VERY UNLIKE ME 1 2 3 4 5 VERY LIKE ME

19. You have just gotten comfortably settled in a new city. Among the things you plan to do is check out the library and book stores.

    VERY UNLIKE ME 1 2 3 4 5 VERY LIKE ME

20. You've just heard about a good book but haven't been able to find it. Even though you're tired, you look for it in one more book store.

    VERY UNLIKE ME 1 2 3 4 5 VERY LIKE ME

Further information can be obtained in Mikulecky, L.; and others. Adult Reading Habits, Attitudes, and Motivations: A Cross-Sectional Study. Monographs in Teaching and Learning, No. 2. School of Education, Indiana University, June 1979.

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PRIMARY READING ATTITUDE INDEX

by Annelle Powell

(Read aloud the following to the class.)

I want to find out what you think about reading for fun. You can help me by listening to what I read and then making circles to show how you feel about what I have read. (Draw three faces on chalkboard -- one smiling, one plain, and one frowning.)

Here are three faces: a happy face, a plain face, and an unhappy face. If someone gave you a piece of candy, which face shows how you would feel? Yes, (pointing) the happy face shows how you would feel.

If someone hurt your feelings, which face shows how you would feel? Yes, (pointing) the unhappy face shows how you would feel.

If someone gave you a cat, which face shows how you would feel? Well, if you like cats, (pointing) this face shows how you would feel. If you do <u>not</u> like cats, (pointing) this face shows how you would feel. But if you are not sure, the plain face (pointing) shows how you would feel.

Now, I am going to give out some papers. (The administrator should keep one copy of the answer sheets to illustrate which page is being used for each item.)

Write your name on the line on the top page. (The Data Sheet should be filled in by either the teacher or administrator.)

Now turn to the next page, the green sheet. I will read the story twice. If you want me to read it again, I will do so. Follow the pictures as I tell the story.

(Three faces should be added to each of the following items.)

SAMPLES:

1. You are playing.
   Someone takes away your toy.
   Circle the face which shows how you feel.

2. You are playing outside with a friend.
   Your mother calls you in to lunch.
   Circle the face which shows how you feel.

---

1. You are sitting at home.
   You are thinking about what to do.
   You take out a book to read.
   Circle the face which shows how you feel.

2. There's a lot more time left in reading class.
   The teacher says that you may do more pages in
   your reading workbook.
   Circle the face which shows how you feel.

3. You have time to read before you go to sleep.
   You choose a book to read or look at.
   Circle the face which shows how you feel.

4. You are playing outside.
   You go in the house to read or look at a book.
   Circle the face which shows how you feel.

5. The school library has just got a lot of new books.
   Circle the face which shows how you feel.

6. Your father is reading the newspaper.
   He lets you look at some of it.
   Circle the face which shows how you feel.

7. Your teacher is reading a poem to the class.
   Circle the face which shows how you feel.

8. Tomorrow the class will have more time for reading.
   You will do more work in the reading workbook.
   Circle the face which shows how you feel.

9. You have books to read at home.
   Circle the face which shows how you feel.

10. You have heard or read a story.
    You draw a picture about that story.
    Circle the face which shows how you feel.

11. Your class is having sharing time.
You tell about a book you have read or heard read aloud.
Circle the face which shows how you feel.

12. You are playing "make believe."
You make believe you are someone from a story you have read or heard read aloud.
Circle the face which shows how you feel.

13. You are at home having dinner.
Your parents ask you if you have read or heard a good story.
Circle the face which shows how you feel.

14. You have written a story about yourself.
The teacher lets you read it to the class.
Circle the face which shows how you feel.

15. You are going to the school library to hear a story.
Circle the face which shows how you feel.

16. There's a lot more time left in reading class.
The teacher says that you can read more in your reading book.
Circle the face which shows how you feel.

17. You can either listen to someone read a story or see the story on television.
You listen to someone read the story.
Circle the face which shows how you feel.

18. Your mother goes shopping.
She buys you a book.
Circle the face which shows how you feel.

19. You and your friends are going to do something together.
You decide to look at a book.
Circle the face which shows how you feel.

20. The class is doing arithmetic (mathematics).
It is time to listen to a story.
Circle the face which shows how you feel.

21. Tomorrow the class will have more time for reading.
You will be able to look at any books in the room.
Circle the face which shows how you feel.

22. You are eating breakfast.
You read the cereal box.
Circle the face which shows how you feel.

23. You have learned a poem.
You say it to the class.
Circle the face which shows how you feel.

24. Tomorrow the class will have more time for reading.
You will read more in your reading book.
Circle the face which shows how you feel.

25. You see some of your friends.
You tell them about a book you have read or heard read aloud.
Circle the face which shows how you feel.

26. You are looking at a magazine.
Circle the face which shows how you feel.

27. You are looking at pictures in a catalogue.
Circle the face which shows how you feel.

28. You have grown up.
You read a lot.
Circle the face which shows how you feel.

29. You are going to the public library.
Someone reads a story.
Circle the face which shows how you feel.

30. You have time to do what you want to do.
You make up a poem.
Circle the face which shows how you feel.

31. Your class is doing reading and arithmetic (mathematics).
You are doing your reading.
Circle the face which shows how you feel.

32. You are trying to make a rhyme.
Circle the face which shows how you feel.

For further information, see Powell, A. Primary Reading Attitude Index with Administrator's Directions. 1971. (ERIC Document Reproduction Service No. ED 091 738).

CHILDREN'S ATTITUDE TOWARD READING TEST (CHART)

by Paul S. Redelheim

Directions For The Group Administration of the Instrument

Open your booklet to the first page. These are some pictures about reading. On each page is a picture and three boxes. Look at the picture. If it shows you something you like, or something you would like to do, mark the box under the green dot (far right). If the picture shows you something you don't like, or something that you would not like to do, mark the box under the red dot (far left). If the picture shows you something that you are not sure whether you'd like to do it or not, mark the box under the yellow dot (center).

Look at each picture and mark the box on each page. Stop when you get to the last page because we have to do that page together. After you finish marking the pages, go back through the book and be sure that you haven't skipped any of the pictures.

(Wait for all students to reach the last page.)

On this page there is no picture, only three boxes. If you like reading, mark the box under the green dot. If you don't like reading, mark the box under the red dot. If you like reading just a little, mark the box under the yellow dot.

The entire test (37 items) and preliminary technical manual are available as TM 810 034 from the ERIC Document Reproduction Service, P.O. Box 190, Arlington, VA 22210.

A SCALE OF READING ATTITUDE BASED ON BEHAVIOR

by C. Glennon Rowell

Directions: Check the most appropriate of the five blanks by each item below. Only one blank by each item should be checked.

	Always Occurs	Often Occurs	Occasionally Occurs	Seldom Occurs	Never Occurs
1. The student exhibits a strong desire to come to the reading circle or to have reading instruction take place.	____	____	____	____	____
2. The student is enthusiastic and interested in participating once he comes to the reading circle or the reading class begins.	____	____	____	____	____
3. The student asks permission or raises his hand to read orally.	____	____	____	____	____
4. When called upon to read orally the student eagerly does so.	____	____	____	____	____
5. The student very willingly answers a question asked him in the reading class.	____	____	____	____	____
6. Contributions in the way of voluntary discussions are made by the student in the reading class.	____	____	____	____	____
7. The student expresses a desire to be read to by you or someone else, and he attentively listens while this is taking place.	____	____	____	____	____

8. The student makes an effort to read printed materials on bulletin boards, charts, or other displays having writing on them. ____ ____ ____ ____ ____

9. The student elects to read a book when the class has permission to choose a "free-time" activity. ____ ____ ____ ____ ____

10. The student expresses genuine interest in going to the school's library. ____ ____ ____ ____ ____

11. The student discusses with you (the teacher) or members of the class those items he has read from the newspaper, magazines, or similar materials. ____ ____ ____ ____ ____

12. The student voluntarily and enthusiastically discusses with others the book he has read or is reading. ____ ____ ____ ____ ____

13. The student listens attentively while other students share their reading experiences with the group. ____ ____ ____ ____ ____

14. The student expresses eagerness to read printed materials in the content areas. ____ ____ ____ ____ ____

15. The student goes beyond the textbook or usual reading assignment in searching for other materials to read. ____ ____ ____ ____ ____

16. The student contributes to group discussions that are based on reading assignments made in the content areas. ____ ____ ____ ____ ____

SCORING: The possible answers to items in the Likert design range from a very negative to a very positive response. The most positive response receives the highest score and the most negative response receives the lowest score. The summated ratings result in the attitude score.

Additional information can be found in: Rowell, C. Glennon. An Attitude Scale for Reading. The Reading Teacher, v25, pp442-47, February 1972.

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THE READING ATTITUDES INVENTORY

by Harry W. Sartain

Make sure that each child has two sharp pencils on his desk. Distribute the response sheets and ask each child to enter his first and last names, his age, and his birth date.

Give the directions exactly as printed below with the exceptions that questions may be answered during the introduction, additional comments may be made when somebody obviously does not understand the procedure, and an item may be read a third time if a child did not hear. Give the directions with some enthusiasm in order to obtain wholehearted co-operation.

"Everybody enjoys doing some things but not others. Today we want to find out what things you like to do. This is not a test. It is a sheet on which you are going to mark what you like to do when I read the different choices. You will not be graded on your answers. We only want to know how you feel about these things."

"For each number on your paper I shall read two sentences. One will be called 'A' and other will be called 'B' after the number on your sheet. I shall read each pair of sentences twice, while you decide which letter to circle."

(Write "Example 1. A B" in manuscript on the chalkboard and point to it.)

"Now find 'Example 1.' near the top of your sheet and put your finger under it. Listen carefully while I read the two sentences that go with that number." (Read each sentence in a pair with exactly equal intonation, so that your voice does not suggest any preference whatsoever.)

"A. I like ice cream. B. Ice cream makes me unhappy."

"I'll read Example 1. again; listen carefully." (Reread it repeating the letter designations, also.)

"Which letter will you circle if you like ice cream?" (Response.) "Yes, you will circle 'A' if you like ice cream. If you do not like ice cream, which letter will you circle?" (Response.) "Yes, 'B'." (Move around the room while talking to make sure each child follows directions.)

"Now, let's do Example 2 together. Do your own thinking; don't pay any attention to what other people like. Put your finger under Example 2. Listen:

"A. I like to clean my desk better than to read a comic book."

"B. I like to read a comic book better than to clean my desk."

"I'll read Example 2 again." (Do so.) "Now circle 'A' or 'B' to tell which you like to do better."

"If you prefer to clean your desk, which letter did you circle?" (Response)

"If you prefer to read a comic book, which did you circle?" (Response)

"Now we shall begin with the numbers below the line and continue down the page. We will not talk at all, but keep our answers secret. Put your finger under Number 1 and listen while I read the two sentences twice. Then circle either 'A' or 'B' to show which you like."

"A. I'd rather read than play outdoors in winter."

"B. I like to play outside in winter better than to read."

"Number 1. again: A. I'd rather read than play outdoors in winter."

"B. I like to play outside in winter better than to read."

"Circle 'A' or 'B' to show which you like." (Pause only a moment.)

"Now put your finger under Number 2."

(Continue in the same manner as above. Do not mention section titles such as "Work-Type Reading." After every 8 or 10 items praise the children for being good listeners and workers.)

ATTITUDE TOWARD READING

(Preference Inventory)

I. RECREATIONAL READING

1. A. I'd rather read than play outdoors in winter.
   B. I like to play outside in winter better than to read.

2. A. I almost never read library books.
   B. I sometimes do read library books.

3. A. I do not read books from the classroom table or shelf every day.
   B. I read something from the classroom book table or shelf almost every day.

4. A. I like to have somebody buy me an interesting new book.
   B. I like a new card game like "Old Maid" better than a book.

5. A. I take a library book home almost every week.
   B. I take a library book home about once a month.

6. A. I like to draw pictures better than to read stories.

   B. I like to read stories better than to draw pictures.

7. A. It is more fun to read a story about cowboys than to see a cowboy story on television.

   B. I like to see cowboys on television better than to read about them.

8. A. I especially like to watch circus animals on television.

   B. I especially like to read a good book containing stories and pictures about circus animals.

9. A. Some of the stories which I read are very funny.

   B. I hardly ever find anything funny in the stories that I read.

10. A. Poems are never fun to read.

    B. Poems are fun to read if they are fairly short.

11. A. When I look at library books, I usually look at only the pictures.

    B. I look at the pictures and read the stories in library books.

12. A. Most of the children in books do not do very interesting things.

    B. I sometimes try to do some of the things that other children have done in the stories I read.

13. A. I like to pretend that I am one of the people in the stories that I read.

    B. The children in stories usually do not do the things that real children do.

14. A. I sometimes put off doing something that I should do because I want to finish reading a story.

    B. I don't read when there is something else to do.

II. WORK-TYPE READING

15. A. It's fun to read silently in my school books.

    B. I do not like to read in my school books.

16. A. I like to work with a group or a committee which is finding information to give in a report to the class.

    B. I like to make things to show to the class better than to find information in books.

17. A. I usually read exactly what the teacher tells me to read.

    B. I often find extra books or stories to read about something which interests me.

18. A. I sometimes read to find the answers to questions that someone has asked me.

    B. I'd rather ask somebody else to answer the questions.

19. A. It's fun to look up new words in the dictionary, a picture dictionary, or a word list.

    B. Picture dictionaries and other dictionaries are too hard to use.

20. A. When I want to make something, I'd rather ask somebody how than try to read a list of directions.

    B. I like to read to find out how to do things or make things.

III. LEARNING TO READ

22. A. I like to find new words in the stories that I'm reading.

    B. It makes me unhappy to find new words when I'm reading.

23. A. I usually try to "figure out" the new words that I find.

    B. I ask the teacher for help as soon as I find a new word.

24. A. It's fun to read out loud to the class in school.

    B. I hate to read out loud to the class.

25. A. I almost always need help when I find a new word in reading.

    B. I can usually figure out the new words that I find.

26. A. I sometimes find that parts of the new words are like old words which I already know.

    B. New words look entirely strange to me.

27. A. I don't like rhyming words.

    B. It's easy to figure out a new word when I see that it rhymes with one I already know.

28. A. I like to find words that start with the same sounds like "plum" and "plush."

    B. It's too hard to hear the beginning sounds of words.

29. A. I can read better now than I could a month ago.

    B. I can read about as well as I could a month ago.

30. A. I think that we spend too much time reading in school.

    B. I'd like to spend more time reading in school.

IV. SOCIAL VALUES

31. A. When I grow up I expect to find a job in which I shall not have to do much reading.

    B. I think that I can have a better job when I grow up if I am a good reader.

32. A. When I am old enough to vote, I'll be able to vote more wisely if I am a good reader.

    B. I'll vote for the people that my friends say they like.

33. A. I don't like people who read many books.

    B. My friends will like me better if I read some of the same things that they read.

34. A. I can find out what is happening in the world by reading newspapers or magazines.

    B. I can get enough of the news from radio or television.

35. A. I like to read out loud to the family.

    B. I almost never read out loud at home.

36. A. I like very much to tell the class some of the stories that I have read.

    B. I'd rather tell the class about something new that I've been given than about a story that I've read.

37. A. I like to wait until I can see people better than to receive letters from them.

    B. I like to receive and read letters.

(Collect the papers as soon as No. 37 has been completed and thank the pupils for their helpfulness.)

Additional information can be obtained in Heimberger, M.J. Sartain Reading Attitudes Inventory. April 1970. 10p. (ERIC Document Reproduction Service No. ED 045 291).

READING ATTITUDE SCALES

by William H. Teale and Ramon Lewis

Directions for administering the scales. Each student should receive a cover sheet and the 33 items. Have students write their names on the cover sheet and then have them read the directions silently while you read them aloud. Be sure the students understand how to answer. You may find it helpful to demonstrate one or more of the practice items on the blackboard.

Once students understand the procedure for answering items, read each item aloud to them, allowing sufficient time for each student to record his/her answer. During the administration monitor students to be sure they are not having difficulty and are responding to each item.

Student Opinion Survey

1. Would you please fill in your name:

   Name: _____

2. There are a number of statements about reading in this Survey. You should give your opinion about these statements as quickly as you can. There are no "right" or "wrong" answers. This is not a test or examination. What we want is your opinion. Please do not write what you think other people want you to believe. Try to indicate what you think. Your answers will not be graded or have any influence on grades in any subject.

3. You should answer the statements by circling the appropriate symbol beside the statements.

Draw a circle around:
- SA if you STRONGLY AGREE with the statement.
- A if you AGREE with the statement.
- D if you DISAGREE with the statement.
- SD if you STRONGLY DISAGREE with the statement.

Practice items:

(i)	My teachers are easy to get on with.	SA A D SD
(ii)	I like history class.	SA A D SD
(iii)	I don't like coming to school.	SA A D SD
(iv)	School is not boring.	SA A D SD

4. If you change your mind about an answer, just cross it out and circle another one. Please give an answer to every statement.

5. Turn over and start when I ask you. Remember to answer as quickly as you can.

1.	The more I read, the more I learn about myself.	1. SA A D SD
2.	There are many things I would rather do than read.	2. SA A D SD
3.	A person who cannot read well will have trouble doing the everyday things involved in life.	3. SA A D SD
4.	Reading is an interesting way of spending time.	4. SA A D SD
5.	Reading won't get you far in life.	5. SA A D SD
6.	Reading does not help me form opinions.	6. SA A D SD
7.	Being able to read well is a great help to people in their schoolwork.	7. SA A D SD
8.	I enjoy reading.	8. SA A D SD
9.	Most books are too long and dull.	9. SA A D SD
10.	Successful people read.	10. SA A D SD
11.	Reading does not help me to understand people better.	11. SA A D SD
12.	In today's modern world reading is not important.	12. SA A D SD
13.	Reading helps develop a person's character.	13. SA A D SD
14.	Reading is a good way to spend spare time.	14. SA A D SD
15.	People who read are usually interesting people.	15. SA A D SD
16.	A time will come when people will not need to be able to read.	16. SA A D SD
17.	Reading just doesn't appeal to me.	17. SA A D SD

18.	Being able to read is the most important thing for doing well at school.	18. SA A D SD
19.	Reading does not help me decide what I think about things.	19. SA A D SD
20.	People who read are better judges of other people.	20. SA A D SD
21.	Reading is fun.	21. SA A D SD
22.	Being able to read well helps a person get a better job.	22. SA A D SD
23.	Reading quickly becomes boring for me.	23. SA A D SD
24.	People who read are better able to see what is important in life.	24. SA A D SD
25.	Reading does not help me understand myself better.	25. SA A D SD
26.	You can get just as far in life without reading.	26. SA A D SD
27.	I like reading more than I like a lot of other things.	27. SA A D SD
28.	Reading helps me make up my mind about what I believe.	28. SA A D SD
29.	People who read a lot do best at school.	29. SA A D SD
30.	Reading is mostly boring.	30. SA A D SD
31.	Reading helps me a lot to understand how other people feel about things.	31. SA A D SD
32.	Being able to read well does not help people get ahead in life.	34. SA A D SD
33.	I usually don't like to read about things.	33. SA A D SD

Scoring the scales

On each scale some items are worded positively ("Reading is fun"), and some are worded negatively ("There are many things I would rather do than read").

The following chart summarises the scoring of the items in the three scales:

Individual Development Scale

Item No.	SA	A	D	SD
1	4	3	2	1
6	1	2	3	4
11	1	2	3	4
13	4	3	2	1
15	4	3	2	1
19	1	2	3	4
20	4	3	2	1
24	4	3	2	1
25	1	2	3	4
28	4	3	2	1
31	4	3	2	1

Utilitarian Scale

Item No.	SA	A	D	SD
3	4	3	2	1
5	1	2	3	4
7	4	3	2	1
10	4	3	2	1
12	1	2	3	4
16	1	2	3	4
18	4	3	2	1
22	4	3	2	1

Utilitarian Scale (continued)

Item No.	SA	A	D	SD
26	1	2	3	4
29	4	3	2	1
32	1	2	3	4

Enjoyment Scale

Item No.	SA	A	D	SD
2	1	2	3	4
4	4	3	2	1
8	4	3	2	1
9	1	2	3	4
14	4	3	2	1
17	1	2	3	4
21	4	3	2	1
23	1	2	3	4
27	4	3	2	1
30	1	2	3	4
33	1	2	3	4

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COMPENSATORY READING PROJECT:

ATTITUDES TOWARD READING,

GRADE 2

by Donald A. Trismen, Michael I. Waller,

and Gita Wilder

E X A M P L E S

A.	I am eating candy.	I am very sad.	I am a little bit sad.	I am a little bit happy.	I am very happy.
B	I have a stomach ache.	I am very sad.	I am a little bit sad.	I am a little bit happy.	I am very happy.
C	I lost my lunchbox today.	I am very sad.	I am a little bit sad.	I am a little bit happy.	I am very happy.
D	I am going to visit the zoo.	I am very sad.	I am a little bit sad.	I am a little bit happy.	I am very happy.

1.	I am learning to read.	I am very sad.	I am a little bit sad.	I am a little bit happy.	I am very happy.
2.	Today our reading class was cancelled.	I am very sad.	I am a little bit sad.	I am a little bit happy.	I am very happy.
3.	Someone gave me a book for my birthday.	I am very sad.	I am a little bit sad.	I am a little bit happy.	I am very happy.
4.	I am listening to the teacher read a story.	I am very sad.	I am a little bit sad.	I am a little bit happy.	I am very happy.
5.	Someone took my library book away from me.	I am very sad.	I am a little bit sad.	I am a little bit happy.	I am very happy.
6.	I am reading to the whole class.	I am very sad.	I am a little bit sad.	I am a little bit happy.	I am very happy.

7.	I took a book to bed with me last night.	I am very sad.	I am a little bit sad.	I am a little bit happy.	I am very happy.
8.	I am a terrible speller.	I am very sad.	I am a little bit sad.	I am a little bit happy.	I am very happy.
9.	My mother is going to take me to the library.	I am very sad.	I am a little bit sad.	I am a little bit happy.	I am very happy.
10.	I just learned some new words.	I am very sad.	I am a little bit sad.	I am a little bit happy.	I am very happy.
11.	I lost my reading book today.	I am very sad.	I am a little bit sad.	I am a little bit happy.	I am very happy.
12.	I am looking up a word in the dictionary.	I am very sad.	I am a little bit sad.	I am a little bit happy.	I am very happy.
13.	My sister is reading me a story.	I am very sad.	I am a little bit sad.	I am a little bit happy.	I am very happy.
14.	I am sitting under a tree reading a book.	I am very sad.	I am a little bit sad.	I am a little bit happy.	I am very happy.
15.	I didn't have enough time to finish my reading today.	I am very sad.	I am a little bit sad.	I am a little bit happy.	I am very happy.
16.	I am writing a poem.	I am very sad.	I am a little bit sad.	I am a little bit happy.	I am very happy.
17.	The newspaper is too hard for me to read by myself.	I am very sad.	I am a little bit sad.	I am a little bit happy.	I am very happy.
18.	I have a toothache.	I am very sad.	I am a little bit sad.	I am a little bit happy.	I am very happy.
19.	I am supposed to write a story in class tomorrow.	I am very sad.	I am a little bit sad.	I am a little bit happy.	I am very happy.
20.	I am the slowest reader in my class.	I am very sad.	I am a little bit sad.	I am a little bit happy.	I am very happy.

21.	I can write all of the letters in the alphabet.	I am very sad.	I am a little bit sad.	I am a little bit happy.	I am very happy.
22.	We were going to visit the library today, but the library was closed.	I am very sad.	I am a little bit sad.	I am a little bit happy.	I am very happy.
23.	The teacher gave me a story to read, but it was too hard for me.	I am very sad.	I am a little bit sad.	I am a little bit happy.	I am very happy.
24.	I can read all of the street signs.	I am very sad.	I am a little bit sad.	I am a little bit happy.	I am very happy.

For further information, see Trismen, D.A. and others. A Descriptive and Analytic Study of Compensatory Reading Programs, Volume I and Appendices A, B, C. Final Report. Princeton, N.J.: Educational Testing Service, December 1975. (ERIC Document Reproduction Service No. ED 130 257).

COMPENSATORY READING PROJECT:

ATTITUDES TOWARD READING,

GRADES 4 & 6

by Donald A. Trismen, Michael

I. Waller, and Gita Wilder

EXAMPLES

	Strongly Agree	Agree	Disagree	Strongly Disagree
A. Math is the hardest subject I know.	++	+	-	--
B. Ice cream is good at any time of the year.	++	+	-	--
C. I am a very fast runner.	++	+	-	--
D. I don't like going to the movies.	++	+	-	--

Read the following statements silently as they are read aloud to you one at a time. Then, if you agree with the statement, circle the +. If you disagree, circle the -. If you agree very much or strongly, circle the ++. If you disagree very much or strongly, circle the --.

	Strongly Agree	Agree	Disagree	Strongly Disagree
1. Learning to read is very important.	++	+	-	--
2. Reading is the hardest thing I have to do.	++	+	-	--
3. I like to take a book to bed with me at night.	++	+	-	--

	Strongly Agree	Agree	Disagree	Strongly Disagree
4. I get nervous when the teacher asks me to read out loud.	++	+	-	--
5. I am very proud of the way I read.	++	+	-	--
6. I learn all sorts of new things when I read.	++	+	-	--
7. I don't like visiting the library.	++	+	-	--
8. I don't think a book is a very good birthday present.	++	+	-	--
9. I often volunteer to read aloud in school.	++	+	-	--
10. Reading is often very boring.	++	+	-	--
11. I am a good reader.	++	+	-	--
12. I get worried when I am asked to read something.	++	+	-	--
13. I like to read to people.	++	+	-	--
14. My mother is disappointed in my reading.	++	+	-	--
15. I dislike books.	++	+	-	--
16. The thing I like best about school is reading.	++	+	-	--
17. I would rather do almost anything than read.	++	+	-	--
18. I don't like to tell other people about things I have read.	++	+	-	--

		Strongly Agree	Agree	Disagree	Strongly Disagree
19.	I spend a lot of my time at home reading.	++	+	-	--
20.	I think I am one of the best readers in my class.	++	+	-	--
21.	My classmates like to hear me read.	++	+	-	--
22.	I like to figure out new words.	++	+	-	--
23.	I don't think I want to learn another language.	++	+	-	--
24.	I am a slow reader.	++	+	-	--
25.	When I grow up I think I would like to teach children like me how to read.	++	+	-	--
26.	Reading is something I usually do without having to be told.	++	+	-	--
27.	I usually understand a story the first time I read it.	++	+	-	--
28.	I feel good about my reading.	++	+	-	--
29.	Most kids my age read better than I do.	++	+	-	--
30.	I have trouble sounding out words.	++	+	-	--
31.	I have trouble reading new things.	++	+	-	--
32.	I usually take good care of books.	++	+	-	--
33.	I like talking about things more than I like reading about them.	++	+	-	--

		Strongly Agree	Agree	Disagree	Strongly Disagree
34.	I am happiest when I am reading.	++	+	-	--
35.	I like to get books for presents.	++	+	-	--
36.	I never read unless someone forces me.	++	+	-	--
37.	I read whenever I have any free time.	++	+	-	--
38.	I am a fast reader.	++	+	-	--
39.	I often start to read something but give up because I don't understand it.	++	+	-	--
40.	I would like reading better if someone would help me with it.	++	+	-	--
41.	I like to start a new book.	++	+	-	--
42.	When a book is too hard for me, I usually stop reading it.	++	+	-	--
43.	I find reading very easy.	++	+	-	--
44.	I often read the cereal box while I am eating.	++	+	-	--
45.	I think I am one of the worst readers in my class.	++	+	-	--

For further information, see Trismen, D.A., and others. A Descriptive and Analytic Study of Compensatory Reading Programs, Volume I and Appendices A, B, C. Final Report. Princeton, NJ: Educational Testing Service, December 1975. (ERIC Document Reproduction Service No. ED 130 257).

RHODY SECONDARY READING ATTITUDE ASSESSMENT

by Regina Tullock-Rhody and J. Estill Alexander

Directions: This is a test to tell how you feel about reading. The score will not affect your grade in any way. You read the statements silently as I read them aloud. Then put an X on the line under the letter or letters that represent how you feel about the statement.

SD - Strongly Disagree

D - Disagree

U - Undecided

A - Agree

SA - Strongly Agree

		SD	D	U	A	SA
1.	You feel you have better things to do than read.	—	—	—	—	—
2.	You seldom buy a book.	—	—	—	—	—
3.	You are willing to tell people that you do not like to read.	—	—	—	—	—
4.	You have a lot of books in your room at home.	—	—	—	—	—
5.	You like to read a book whenever you have free time.	—	—	—	—	—
6.	You get really excited about books you have read.	—	—	—	—	—
7.	You love to read.	—	—	—	—	—
8.	You like to read books by well-known authors.	—	—	—	—	—
9.	You never check out a book from the library.	—	—	—	—	—
10.	You like to stay at home and read.	—	—	—	—	—
11.	You seldom read except when you have to do a book report.	—	—	—	—	—
12.	You think reading is a waste of time.	—	—	—	—	—
13.	You think reading is boring.	—	—	—	—	—

	SD	D	U	A	SA
14. You think people are strange when they read a lot.	—	—	—	—	—
15. You like to read to escape from problems.	—	—	—	—	—
16. You make fun of people who read a lot.	—	—	—	—	—
17. You like to share books with your friends.	—	—	—	—	—
18. You would rather someone just tell you information so that you won't have to read to get it.	—	—	—	—	—
19. You hate reading.	—	—	—	—	—
20. You generally check out a book when you go to the library.	—	—	—	—	—
21. It takes you a long time to read a book.	—	—	—	—	—
22. You like to broaden your interests through reading.	—	—	—	—	—
23. You read a lot.	—	—	—	—	—
24. You like to improve your vocabulary so you can use more words.	—	—	—	—	—
25. You like to get books for gifts.	—	—	—	—	—

Scoring: To score the Rhody Secondary Reading Attitude Assessment, a very positive response receives a score of 5, and a very negative response receives a score of 1. On items 4, 5, 6, 7, 8, 10, 15, 17, 20, 22, 23, 24, and 25, a response of "strongly agree" indicates a very positive attitude and should receive a score of 5. On the remaining items, a "strongly disagree" response indicates a very positive attitude and should receive the 5 score. Therefore, on the positive item, "strongly agree" receives a 5, "agree" receives a 4, "undecided" receives a 3, "disagree" receives a 2, and "strongly disagree" receives a 1. The pattern is reversed on the negative items. The possible range of scores is 5x25(125) to 1x25(25).

Further information can be found in Tullock-Rhody, Regina, and Alexander, J. Estill. A Scale for Assessing Attitudes Toward Reading in Secondary Schools. Journal of Reading, v23, p609-14, April 1980.

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